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Vol. III, No. 9

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International Olympics Conference on Physical Education:

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Sport for the People
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Physical Education, Athletics, and Mental Hygiene
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Contribution of Orthopaedic Surgery to Physical Education
. . . Charles L. Lowman, M.D.

Contribution of Jiudo to Education
. . . . . Jigoro Kano

The Athlete in Sculpture
. . . R. Tait McKenzie, M.D.

Physical Education in Finland
. . . . . Lauri Pihkala

Some of the Physical Education Problems in Poland
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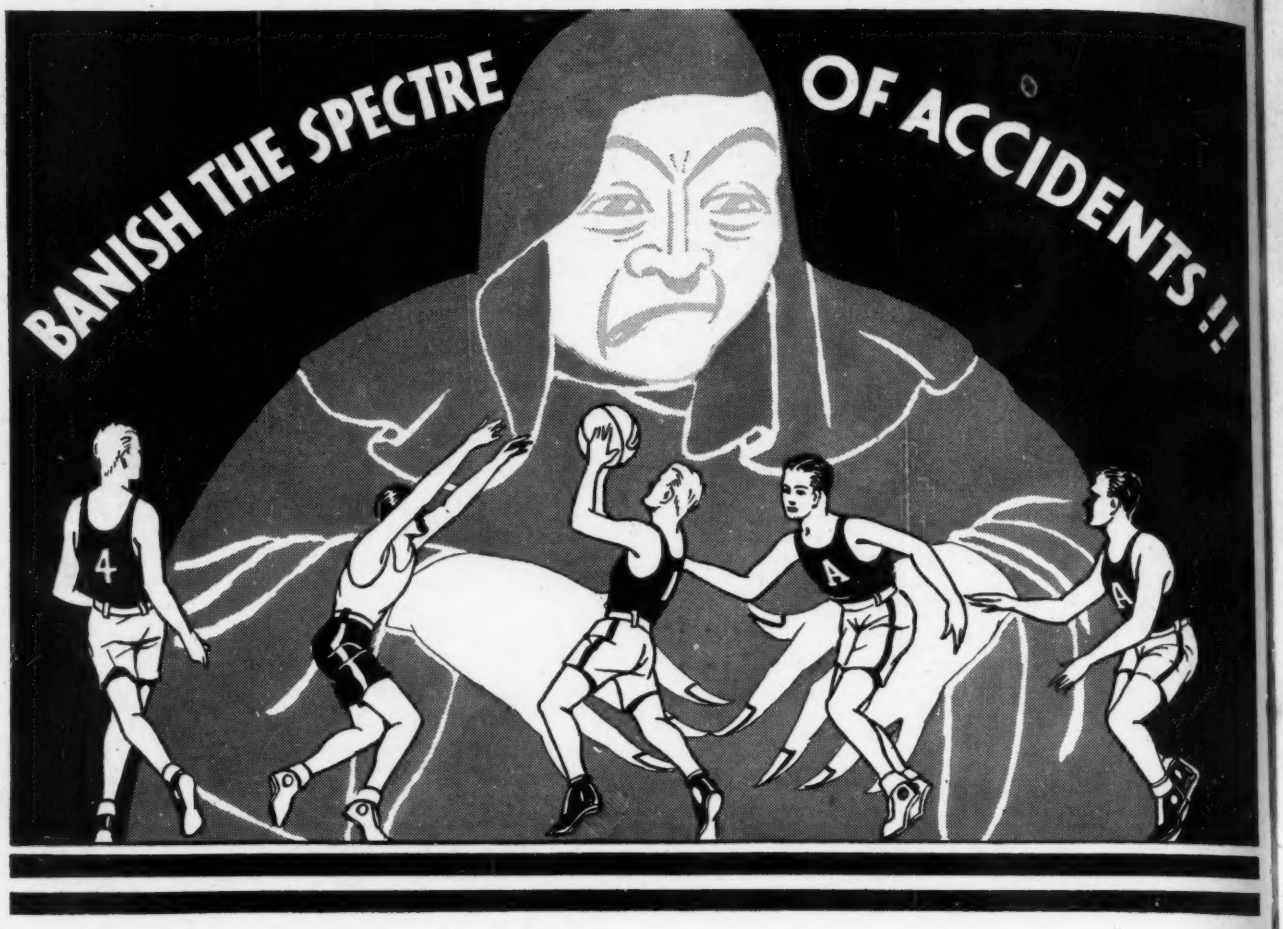

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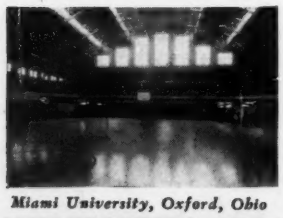

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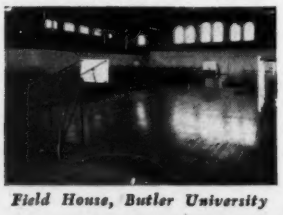

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In This Issue

	Page
THE TENTH OLYMPIC GAMES. *Hartley D'Oyley Price*	3
FOOTNOTES ON THE OLYMPIC GAMES. *V. K. Brown*	8
EDITORIALS	14
THE NATURE AND PURPOSE OF THE INTERNATIONAL OLYMPICS CONFERENCE. *Wm. R. LaPorte*	16
YOUTH AND LEISURE: THE IMPORTANCE OF RECREATION. *Sir Noel Curtis-Bennett*	18
CULTURAL ASPECTS OF PHYSICAL EDUCATION. *Jesse F. Williams, M.D.*	20
SPORT FOR THE PEOPLE. *Dr. Carl Diem*	24
PHYSICAL EDUCATION, ATHLETICS, AND MENTAL HYGIENE. *A. Latarjet*	26
PHYSICAL EDUCATION AND GENERAL EDUCATION. *Dr. Coleman R. Griffith*	29
THE RELATION OF ORTHOPAEDIC SURGERY TO PHYSICAL EDUCATION. *Charles L. Lowman, M.D.*	35
THE CONTRIBUTION OF JIUDO TO EDUCATION. *Jigoro Kano*	37
THE ATHLETE IN SCULPTURE. *R. Tait McKenzie*	41
PHYSICAL EDUCATION IN FINLAND. *Lauri Pihkala*	47
SOME OF THE PHYSICAL EDUCATION PROBLEMS IN POLAND. *General Dr. Stanislaw Rouppert*	49
THE DEVELOPMENT OF PHYSICAL EDUCATION IN FRANCE. *Dr. Bellin du Coteau*	52
BOOK REVIEWS	64

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The Tenth Olympic Games

Olympic Medal—obverse

Citius, Altius, Fortius---
Faster, Higher, Stronger

By

HARTLEY D'OYLEY PRICE

School of Physical Education, University of Illinois

Olympic Medal—reverse

THE important thing in the Olympic games is not winning but taking part—The essential thing is not conquering but fighting well." The words of Baron Pierre De Coubertin, founder and life honorary president of the modern Olympic Games were read by thousands on that memorable afternoon, Saturday, July 30, 1932.

Visualize a brilliant sun in a blue, cloudless sky; flags of all nations fluttering from the ramparts of the immense stadium; a vast, expectant throng of more than 105,000; color, color everywhere; blimps and airplanes droning overhead; a rich patch of green that is the gridiron or contestants' field—and you have a picture of that colossal, elliptically-shaped structure, Olympic Stadium, as it looked on that opening day.

Breaking a crowd tenseness that was felt by every member, the stirring strains of "The Star Spangled Banner" welcomed the sponsoring officials, to whom all credit is due, and the great event for which Los Angeles had been preparing for years was actually under way.

Emotion ran high as the dignified Parade of the Nations became the center of attraction. The colorful procession was led by Greece, the Mother of the Olympics, with the rest of the nations following in alphabetical order; the United States, as host nation, came last.

Each unit was easily distinguishable by its smart uniform, such as the red and white combination of the United States representatives and the dark green of South Africa. Brilliant blues, bright greens, and conservative dark blues added color to the resplendent scene.

The women presented a graceful and pleasing sight. It was a picture of the glory and strength that is youth's right.

The flower of their country, these young men and women had fought and conquered and had won the right to be considered, not just passing good, but the best.

How satisfying was such a scene when one meditated upon this parade of peace dedicated to sport, as compared to a military parade in time of war. One could not help but reflect upon the heart-breaks that would come to some of these representatives if selfish politicians plunged their nations into future war on account of unjustifiable bias, misunderstanding, and selfish gain. The beautiful friendships that must have been formed in Olympic Village call to mind the saying of Bobbie Burns, "A man's a man for a' that."

The opening day with its reflections were indelibly impressed on the mind of the writer. An assemblage of champions! Some to gain further laurels, but all the world to gain from their close fellowship!

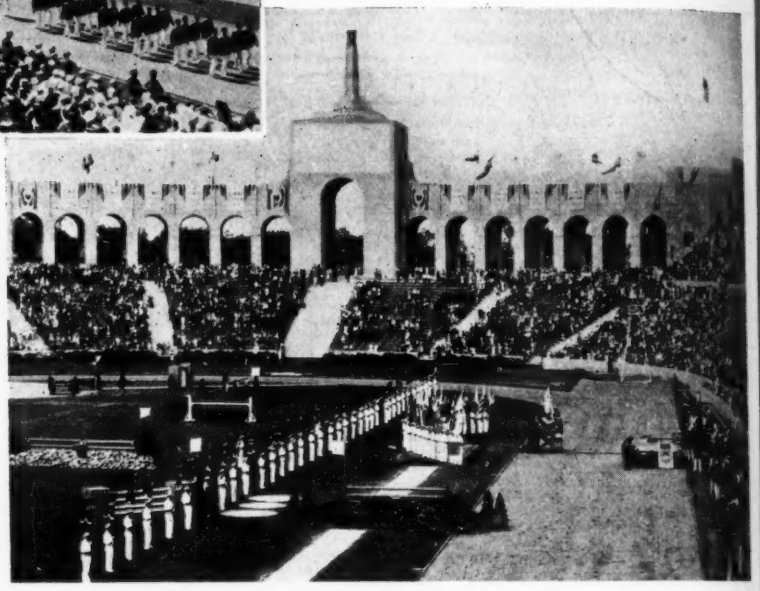
High above the peristyle of the stadium, the Olympic Torch lighted the way for international goodwill, even as the ancient games strove to provide a remedy for internal difficulties with which Greece was beset. For the duration of the Games, the torch flamed continuously.

A solemn hush fell upon the vast assembly as the athletes took the oath:

"We swear that we will take part in the Olympic Games in loyal competition, respecting the regulations which govern them and desirous of participating in them in the true spirit of sportsmanship for the honor of our country and for the glory of sport."

The Olympic flag with its five interwoven circles of blue, black, red, green, yellow (representing the five continents) on a background of pure white proudly waved from its flagstaff. Hundreds of doves dipped and circled as these splendid young representatives of thirty-nine countries marched from the field—the women to Chapman Park Hotel, the men to the Olympic Village. Before them was the thrill of competition, leading some to victory, some to defeat; for all, the "essential . . . to have fought well."

A word should be written about the village, unique as it was in the history of international gatherings. A veritable city of champions, designed especially for their particular needs and comforts, with its 550 rose-colored stucco, two-room cottages, it was here that 2,000 men made their homes. Covering a tract of 331 acres, the site was selected for its spectacular view and ideal climatic conditions. The entire village site was fenced in, entrance being gained through an adminis-



Above—Opening ceremony, American team coming in. Right—Closing ceremony.

tration building of Pueblo Indian architecture. Miles of excellent graded roads, green grassy plots, shrubs and palm trees lent a homelike air to the place. Miles of water mains, every known kind of bath for the athletes, a shower in each house and wash bowl in each room were some of the lesser-known details. For the first time since the men of ancient Greece pitched their tents on the plains of Elis, participants in the games were housed and fed in a complete community designed for such a purpose. The success of Olympic Village was an outstanding feature. German authorities are planning to make every effort to continue with this successful experiment for the XIth Olympiad at Berlin.

The stranger in California (and the number ran into thousands) was delighted that each day brought smiling skies, no hint of rain, no sudden storms. The Californian expects such weather and takes if for granted. What an asset to an international affair like the Olympics!

How the true lover of sport for sport's sake must have thrilled to the marked courtesy of the Japanese! Their natural modesty and fine sportsmanship made a strong appeal and created a favorable impression everywhere.

That perplexing problem, the difference in language, was handled competently. Offices were provided in the village for the attachés of the various countries, and interpreters were supplied. Announcements at some of the events were spoken in French, German, Spanish, and English.

Ever an outstanding feature of the Olympic Games is the Victory Ceremony. The first three place winners in every sport are accorded this same honor. The announcer requests everyone to stand, the men to remove their hats, and all to face the Olympic Torch. He then repeats the words, "Ceremonie Olympique Protocolaire — Olympic Victory Ceremony," followed by an announcement of the sport, the event and the name and nation of the winner, concluding with the words, "Champion Olympique!" At the same time, the flag of the winner is raised on the center standard of the peristyle and the national anthem of his country is played. Two smaller flags representing the other two place winners are raised on either side of the center standard. The winners then are congratulated and receive their awards on the victory stand. The champion is in the center and on either side, on lower steps, are the other two place winners. It is a very impressive ceremony.

Each day's program was well balanced, trial and final heats of different events keeping one's attention. If you were interested in track, then from 2:30 to 5:30 p.m. you could get your fill of hurdles, broad and high jumps, shot put, the races (100, 200, 400, 800, 1500, 5,000, and 10,000 meters), steeplechase, pole vault, discus or javelin throw. With records being broken every day, interest was kept at fever pitch.

If the brawny, strong-man type appealed to you, then the evening could be given over to weight-lifting, boxing, or various kinds of wrestling. If there was for you a fascination in the graceful art of fencing, then many an after-breakfast, after-lunch hour could be spent in the fencing stadium. If your nature craved the jockeying-for-position, gruelling speed of cycling, then the Rose Bowl offered evening entertainment.

If water sports called you, then it was easy to obey

the summons, for swimming occupied a large share of the limelight. Predictions were plentiful that at the XIth Olympiad, the American style of swimming will be very different. The Japanese youths who easily won the swimming, used a modified American crawl. It was very noticeable that they were making more strokes per minute. In a final lap of one of the races, the Japanese were taking 82 or 83 strokes while Americans and others were taking but 65 per minute. The American girls won their swimming event.

Diving, almost mechanically perfect in some instances, delighted the spectator with its sheer grace and beauty. The method of judging diving was very efficient. The "flash" system was used and each judge was in a little "coop." He had available the ten numbers on cards equipped with a handle and mounted on a small table. He merely selected the right handle and exposed the number to view.

The "rough house" of water-polo thrilled the person who enjoyed that sort of thing. The team from Hungary displayed this game *par excellence,* and recommended that some of the teams relinquish their rough tactics and play the game as the rules stipulate.

Rowing drew thousands to Long Beach Marine Stadium where the course is considered one of the most ideal of its kind in the world. Owing to its advantageous position, it is not affected by wind or tide. This course represents the untiring efforts of the city of Los Angeles to provide the best possible equipment yet devised for such an event. It is the result of considerable excavation and the diverting of water from the Pacific Ocean into it. It is the only rowing course in the world that is lined throughout its length with bleachers on both sides.

Los Angeles Harbor was the scene of friendly rivalry when various types of yachts were entered for competition. Largely because of American initiative, the International Star class was inaugurated as a feature this year; incidentally, it was the United States which took first place in this class.

Pistol and rifle shooting, held at Elysian Park Range, drew their share of enthusiasts.

Lacrosse, a fast sensational game new to Californians, found a popular response. This contest was between the Canadian Nationals and Johns Hopkins University. Much to the delight of the audience, Will Rogers announced a part of the final contest. He humorously enlarged upon the apparently murderous intent of participants as they wielded their clubs during play.

What an exhilarating exhibition of field hockey was put on by the dashing sons of India! Who, having seen their play, will forget their splendid team work or their marvelous dexterity with the ball? A perfect example of coordination was displayed by several members when they actually ran with the ball balanced on the end of their hockey stick. The sturdy men from Nippon put up a brave fight but were decidedly outclassed, and the American team took the count from the Japanese.

Field hockey has not been consistently played in the Olympic Games. It appeared in 1908 and 1920, and was won by Great Britain. Then in 1928, India entered the lists and swept to a clean victory, not once being scored upon by any of the four nations entered. India's hockey team came and went, champions of the highest caliber.

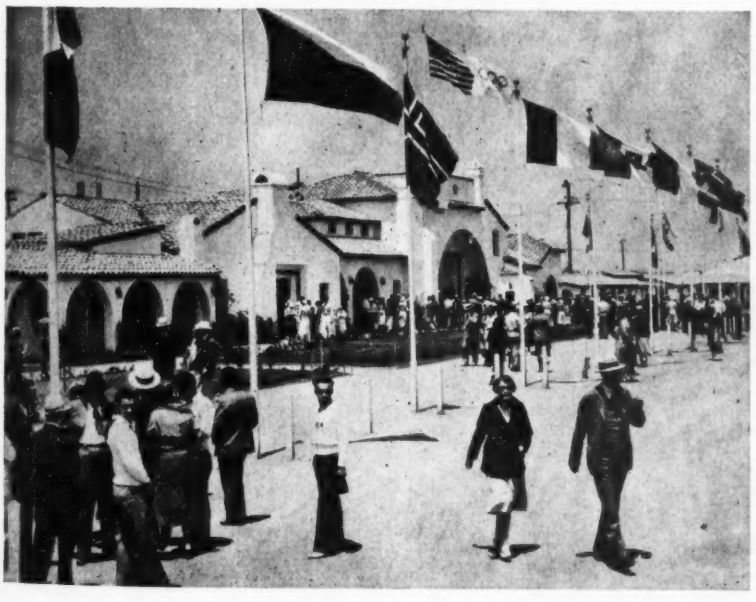
Although the writer coaches gymnastics, and enthusiastically anticipated this event, he was very disappointed in it. The reason was not due to the performance of the competitors, but to the method of judging. The three judges had to agree on the same score before the next man performed. This process slowed up gymnastics and thus it did not receive the patronage that such excellent performances deserve.

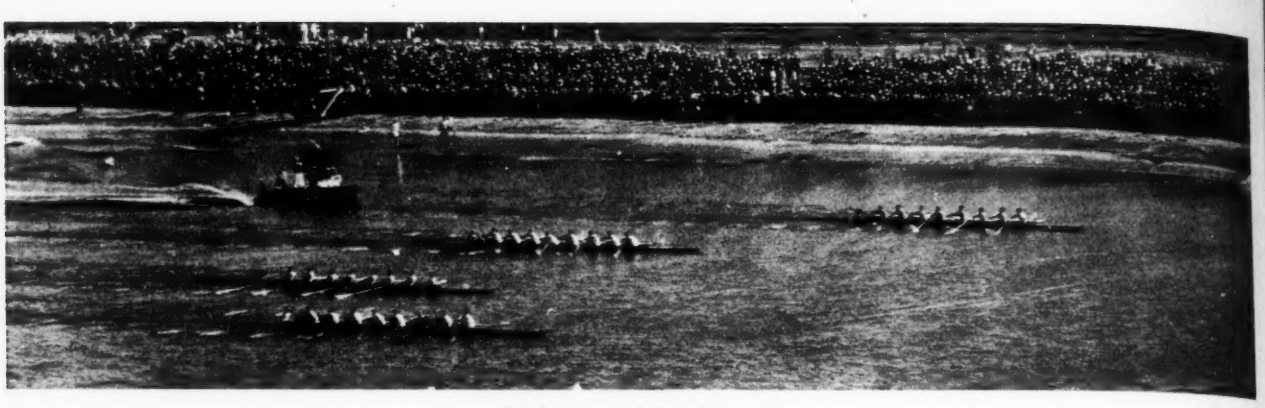
Boxing and wrestling were not very popular, perhaps because the audience was ignorant of the Olympic rules. On numerous occasions, the choice of the crowd did not get the decision. However, the officials, in making their decisions, seemed to be impartial in their "unfairness." No one country was favored. The method of judging the wrestling was interesting. The wrestlers wore red and green socks respectively. Judges were posted in three corners; in front of them on a table were three lights, red, green, white. In the case of a bout depending upon a decision, they were given a signal, and they switched on their choice of lights. Those favoring the wrestler with the red socks, switched on the red light and similarly with the use of the green light. If doubtful, the white light was switched on.

The boxers were required to wear shirts in the Olympics, and this seemed strange to us. Twenty points per round were divided between the contestants.

Visitors from other nations failed to exhibit much enthusiasm about our great game,

Entrance to Olympic villiage. Ladies' guest parlor and individual headquarters of the various national teams.





Final heat—eight-oar boat race.

American football. It is hard to realize how complicated the game actually is until one attempts to answer the numerous questions asked, and finds that it is far from easy to give a satisfactory explanation regarding the how and why of details. The game was bitterly fought by picked men from east and west. The last few minutes of play afforded a "movie thriller" when the west ran 65 yards for a touchdown, successfully kicked goal, and won the game, 7-6.

Soccer, rather than American football, perhaps would have met with the hearty approval of foreign visitors as it is the outstanding game of so many nations. It was not featured in the Xth Olympiad.

Even with the excitement caused by the many announcements, "A new world (or Olympic) record!", even with days so full for the spectator, it was impossible to forget the "iron men" engaged in that gruelling series of events calling for the utmost in strength, stamina and skill—the decathlon and the pentathlon.

No competition of early Greece can quite compare with our modern decathlon event. The greatest pride of earlier Olympiads was the all-round athlete, but he was never called upon to perform in any series of events that demanded the endurance called for today. For two consecutive days, contestants are required to engage in ten different sports; 100-meters, broad and high jump, shot put, 400-, 500-meter run, 110-meter hurdles, discus, pole vault, and javelin throw. This is particularly exhausting to even the most rugged!

What heartbreak the plucky Latvian, Dimsa (representing one half of his country's contingent and in the lead near the end), must have suffered when he injured his ankle and had to retire from the decathlon competition. But this is an old story. Olympiads of the past and future have been and will be full of such heartbreaks. It proves the worth of the man who can take such punishment and disappointment and then patiently train again for another start.

Main entrance to Olympic stadium, showing pylon for Olympic torch.

The track and field events showed Finland outstanding in the javelin, Poland in the 10,000-meter run, Argentine in the marathon, Italy in the 1500-meters, Japan in the hop, skip and jump, Great Britain in the 800-meters, Ireland in the 400-meter hurdles, and the United States in the sprints, broad jump, pole vault, shot put, and the relay races. In the women's events, the United States reigned supreme.

The close of the Xth Olympiad again found Sweden the champion of the modern pentathlon, an unblemished record held since its introduction into the games in 1912.

The pentathlon of the early Greeks consisted of running, leaping, wrestling, throwing the *diskos,* and throwing the javelin or spear. Our modern pentathlon, to all intents and purposes the test of a soldier-athlete, is perhaps the best all-round test of ability in the athletic world. Included in the five events are revolver shooting (rapid fire at a disappearing target), fencing, swimming, cross-country running, and cross-country horse-back riding. In the equestrian phase of the proceedings, consisting of a series of jumps as well as the cross-country riding, the men are not permitted to inspect the course until the day before the ride, and then may only walk over it. They may not try out their mounts until fifteen minutes previous to the ride.

The climax of the five-day contest is a run over more than two miles of difficult territory. The contestants of this Xth Olympiad claimed that the steeplechase course and the 5000-meter cross-country were the stiffest that had ever been faced by modern Olympic contestants. These men go through the grind of the contest without the plaudits of the audience. When the announcement comes from the loud speaker, "Ceremonie Olym-

pique Protoclaire—" they may feel that they well have earned the applause that greets them.

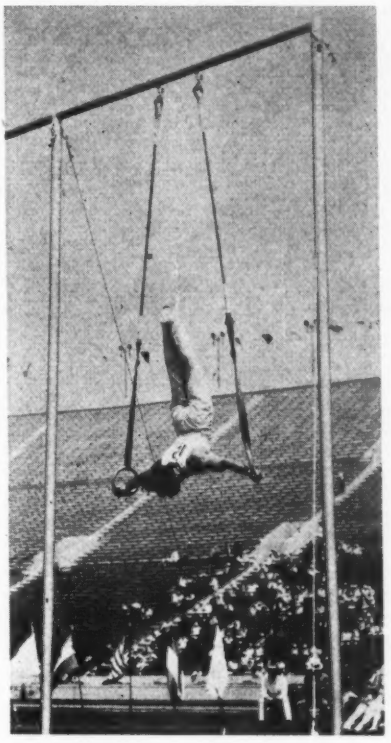
Sunday, August the fourteenth, brought the Xth Olympiad to a close. As on the opening day, the picture within the immense stadium was one of dazzling, spectacular color.

The sensational equestrian event, the "Priz des Nations," most happily fell on this closing day. The gathered assembly thrilled unbelievably to the splendid exhibition of horsemanship. The course was considered the most difficult in the history of the games, and many a spill brought forth gasps from the tense audience. Murmurs of hearty approval greeted the magnificent, thoroughly-trained "Taine" as he went through his paces in the dressage event at the command of his rider, Commandant LeSage of France.

The last cheer died away. A hush fell upon the stadium. The Xth Olympiad was about to come to a dramatic close.

Marching slowly from the west end of the stadium, came the standard bearers of the flags of all nations. Colorful, richly silken, the flags waved and fluttered in the late afternoon sun.

A short word picture will afford a glimpse of those last few minutes within the walls of that mighty stadium: the band played softly; a fan-fare of trumpets sounded from the peristyle; the boom of an artillery salute announced that the Olympic flag was about to be furled for another four years; the flaming torch grew dimmer—and faded entirely. Tinged with the sadness of farewell, officials made their closing speeches; the standard bearers took their exit amid the glorious crescendo of the chorus of 2500 voices singing "Aloha, farewell to thee." Then taps, eerily solemn, climaxed this impressive, almost mystical ceremony.



Bishop of the United States Gymnastic Team.

The people filed slowly out of the stadium, assimilating the while the quotation on the score-board, "MAY THE OLYMPIC TORCH PURSUE ITS WAY THROUGH THE AGES."

The magnificence, the splendor, the glory that was the Xth Olympiad is history!

But may we not hope that the feeling of brotherhood that this occasion stirred in many a heart will exist as long as memory brings back to mind the lessons of courage, sportsmanship, and fellow-feeling that were ever recurring. Every spectator should be a better citizen of the world for having shared in so many splendid examples of brotherly courtesy.

May the rich sentiment of sportsmanship and good will that pervaded throughout these gruelling contests be a harbinger of future world peace and brotherhood.

Olympic village from the air.

Courtesy *Parks and Recreation*

There were 105,000 people at the opening of the Olympic Games.

Footnotes on the Olympic Games

By

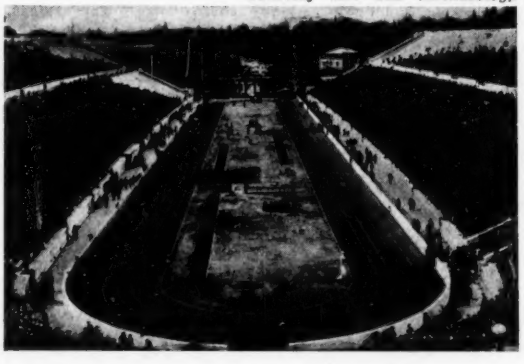
V. K. BROWN

Superintendent of Playgrounds and Sports, South Park Commissioners, Chicago; Official Olympic Judge

AT THIS date, with football season well started, the man who brings up again the subject of the Olympic Games no doubt makes himself liable to inquiry on the part of acquaintances as to the state of his health. My only defense is that the recent Olympics will remain for a long time the subject of reminiscent comment, and the reason for my tardiness in bringing up the subject here lies in the fact that I promised the editors a story about the Games, and have only recently reached home and a chance to get to my typewriter. The editors thought, evidently, that however thoroughly the press might carry the story of the Games and the results, there are always individual impressions which help the man interested in the spectacle, but unable to attend, to visualize for himself what the event must really have been. If a sufficient number of those who actually saw the games give intimate pictures of things which impressed them as being especially significant, the composite picture in the mind of the absentee may slowly fill itself out and give him a fairly accurate idea of the great sport pageant. I shall not, therefore, attempt a review of the entire series of Olympic contests. I did not even see all of the competition. There were too many conflicts in the schedule to permit any person to do so. The records have been tabulated, and anyone interested has undoubtedly filed away a fairly complete tabulation of what was done. I did receive, however, some personal impressions which

Original stadium at Athens restored for the Games of 1896, the first modern Olympiad.

Courtesy *Art and Archaeology*



helped interpret the event to me, and which might interest the readers of these pages.

After a lapse of four years, I find that three or four features of the 1928 Olympics still stand out in memory as the highlights of the Ninth Olympiad, in Amsterdam. Readers will recall that the great negro athlete, DeHart Hubbard, pulled a tendon in preparing for the Olympic tryouts, and in the brief period of time between the occurrence of that accident and the final tryouts, since he had set his heart on making the American Olympic Team, he changed completely those delicately balanced techniques which go to make the difference between the ordinary and the superior athlete, shifted his take-off to the left instead of the right foot on the broad jump, and in the subsequent trials at Harvard had sufficiently mastered this reversal of form to enable him to jump almost 24 feet, place third, and make the team. I thought at the time, and still think, that was one of the romances of athletic history. It seemed a fine example of that sort of courage, in the face of discouragement, which we like to think participation in athletics develops in the contender.

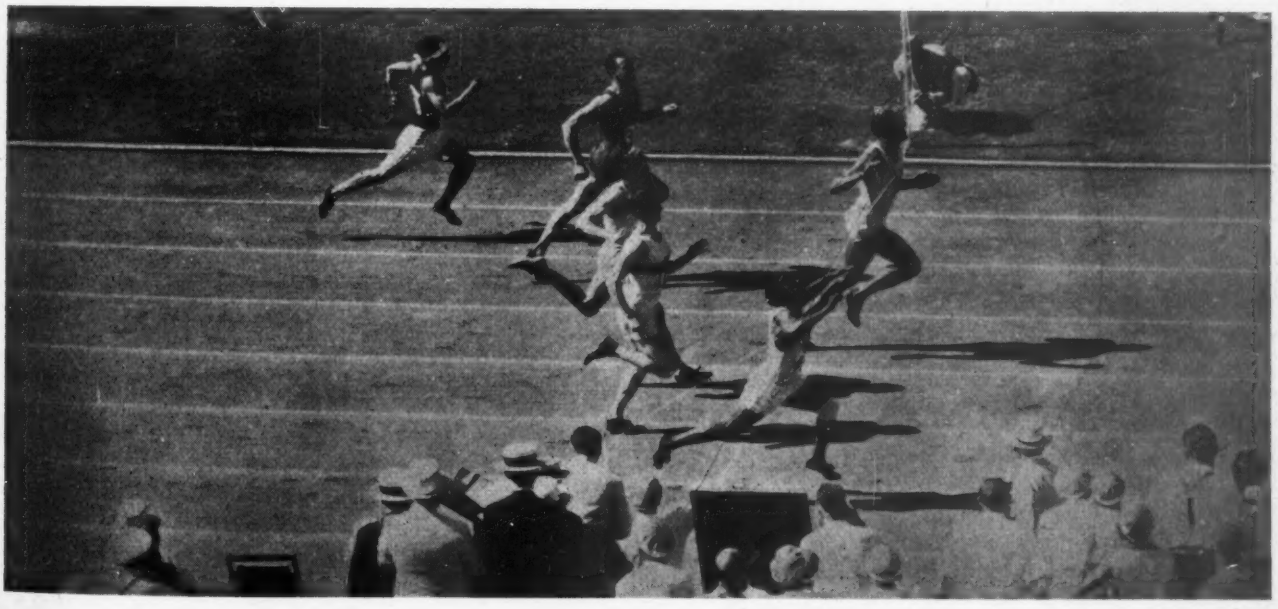
Don Gwinn, the 142-pound American athlete, who won third place as one of the hammer throwers, also stands out in my opinion as an example of what disciplined application to the business in hand can accomplish, even under a severe physical handicap. He threw the hammer in the tryouts 161 feet, 3-7/8 inches, or 1-1/7 feet per pound of his actual weight. When one considers the world's record in this event and applies the same achievement standard to some of our 200-pound athletes who compete in this event, he gets, in my opinion, some basis for appreciating the real significance of the great ability which Gwinn developed in his favorite athletic event. Don developed his throwing technique by mastering four turns in the hammer throwing circle, instead of the conventional three.

Another event in 1928 which impressed me was the performance of Chuck McGinnis, in the Harvard tryouts. McGinnis competed in those tryouts in both the running high jump and pole vault, tying for fourth in the pole vault and placing second in the high jump. It will be recalled that these events were conducted simultaneously. Other athletes were exhausted by the repeated trials as the bar was slowly raised, even though they competed only in one of these two tiring events. McGinnis, however, competed simultaneously in both events. After a trial at one end of the field in the pole vault, he walked the length of the field to be ready for his turn on the next trial in the high jump. Both events reached their ceiling at the same time, and McGinnis was still in the pole vault competition with the bar standing at 13 feet, 9 inches (already having cleared 13 feet, 6 inches) at the moment when the high jump bar stood at 6 feet, 5 inches, which he cleared, but later placed second to King in the jump-off. His performance in these two simultaneous events will always stand out in my memory as a great exhibition of sheer endurance.

After reaching Amsterdam, on one of the practice fields one afternoon I watched the Polish woman athlete—Miss H. Konopacka—make her three turns in the discus throwing circle, and consistently hurl the discus a minimum of 20 feet beyond the established world's record. At that time she was about the only woman athlete throwing the discus in the orthodox men's style.

Seeing my motion picture camera, an Irish shot putter on the same field asked me whether I would like to take a picture of the man who was going to win the hammer throw. I told him that I would be glad to do so, but asked him what distance this man, who was already certain to win, was getting in his throws. He told me the athlete was consistently throwing the hammer between 170 and 180 feet, and I decided to take the pic-

Finish of the memorable 100-meter dash



Courtesy *Parks and Recreation*

Olympic stadium from the air on opening day with the athletes assembled to take the Olympic oath.

ture. He took me over and introduced me to his brother, Dr. Patrick O'Callaghan, at that time a student in Cork University. The shot putter modestly admitted that he himself was only a mediocre athlete, but his honest pride in his brother was so frankly naïve that I would have taken the picture even though the Doctor had been able to heave the iron ball not more than 50 feet. The hammer thrower of the family had finished his practice for the afternoon, but with a most generous willingness to oblige an utter stranger he agreed to make one more throw before the camera, and I took a motion picture of him in action. After he made his throw, I borrowed a tape from one of the American trainers and measured the distance. He had thrown the hammer for me something over 174 feet. His was such a delightful personality that my contact with him on the practice fields of Amsterdam will always remain a pleasant memory.

Assigned as judge in the throwing events in Los Angeles last summer, I saw the great Irish athlete when he came onto the field the afternoon when the hammer throw was staged; and as he came out I stepped over to express, as an American, my hope that he would acquit himself as well on American soil as he did in Holland. I intended to introduce myself, but he caught sight of me, walked up, and shook my hand and said, "I do not remember your name, but one day when I was practicing in Amsterdam I remember that I met you." After expressing my best wishes I went out onto the field to assist in judging the events of the afternoon. I was naturally interested in following O'Callaghan's attempt to win the hammer throw again, as he did in Amsterdam, but while he had no difficulty in qualifying and made some good attempts, he did not seem able to get going—perhaps due to the natural tensions under which he was working, and the fact that some 80,000 spectators were watching him as the former champion.

It was this athlete's fortune, however, to stage one of the outstanding dramas of this year's Olympics. The Finnish champion, Porholo, with a throw of 171 feet, was leading when O'Callaghan stepped into the circle for his final throw of the day. The announcer called the attention of the assembled spectators to the fact that O'Callaghan was about to make his final attempt. The great Irish athlete stood in the circle summoning himself for the supreme final effort. Repeatedly he looked out over the grass to where a small Finnish flag marked the best throw of the day, and the mark which he must beat if he was to retain his championship. Flexing his powerful muscles, he swung the hammer easily around his shoulders for several leisurely turns, and finally swung into his rhythm, made his accelerating turns, and with a mighty heave of his great shoulders, launched the hammer in what everyone could see to be a perfect delivery. Everyone else on the field had stopped to watch his last attempt, and the crowd breathlessly calculated the arc of the hammer as it hurtled through the air. The elevation was perfect, and before the hammer hit the turf a great roar had already started in the stands. The flag of Ireland was already visualized by the onlookers in the central victory position. Everyone present knew that O'Callaghan was again the Olympic victor! The distance fell only ⅞ of an inch short of 177 feet, for a new Olympic record. George Donoghue, on the Board of Managers of the National A.A.U., insists that O'Callaghan's throw was to him the outstanding dramatic moment of the Games. I think that many of the spectators would agree with this verdict. It certainly was one of the great moments of the Games, which will always come back to me when I think of the Olympics of 1932, in much the same way as the other events which I have recounted here stand out in memories of 1928.

A similar thrill came to me, however, when Lillian Copeland made her world record breaking throw of the discus. She competed in 1928 as a Southern California University student, but Miss Konopacka was unbeatable

in Amsterdam. This summer Miss Copeland, now a post-graduate student about to receive her degree in the law school at Southern California, was making what will probably be her last appearance as a woman contender for Olympic honors representing the United States. Some of our girls, and some from abroad, taking a page from Miss Konopacka's record, adopted the men's technique in throwing the discus, and on the first throw of the afternoon Miss Osborne, of the United States, outdistanced Miss Konopacka's record of approximately 130 feet by throwing the discus well over 131 feet, making her turns in the circle just as do the men. Miss Copeland followed her, with this new world's record to shoot at, made her three turns, and fell several feet short of Miss Osborne's new record. She qualified, however, and made her two subsequent throws and the first two final throws without coming up to her initial mark in second place. Finally she stepped into the circle for what she must have felt to be the last time that she would ever represent her country in the women's Olympic events. She stood concentrating every faculty on the final effort which she was about to make, and manifestly attempting to relax in preparation for a supreme effort. Evidently she determined to abandon the technique of taking turns in the circle, and fall back on the method of launching the discus which she had formerly used—that of standing in position. Twisting with arm extended to gain the largest possible arc, while her feet were planted in position, she swayed backward and forward several times, crouching and straightening as she brought the discus up and forward, and finally, putting everything she had behind it, she launched the most perfect throw which I have ever seen, or am likely to see, from a standing position.

It was really a thrilling sight to me to see an athlete put so much power into one supreme effort, and then to observe the discus sailing perfectly out to a new world's record. The distance was 133 feet, 2 inches, and I do not believe that, using that particular technique, it is ever likely to be outdistanced. I do think that women perfecting the turns in the circle, as men have done, are likely to break this record; but no woman, in my opinion, standing planted in the circle, is ever likely to get away with a more perfect throw than Miss Copeland scored that afternoon. Something of the extreme tension under which an athlete labors in such moments as that was reflected in Miss Copeland's subsequent actions. She is a woman of perfectly calm demeanor and poise, but when she went back to her seat on the bench, after winning laurels as a new world's record holder, she burst into tears and had a good cry over it.

One of the tragedies of the meet, to me at least, was Jessop, the great discus thrower. I saw him break the National Collegiate record on Stagg Field several years ago, when I was officiating, and have seen him in action on several occasions. Knowing him, on the afternoon of his appearance in Los Angeles I had a little chat with him before the event started. He was in splendid mental and physical condition, did not appear to be unduly tense or nervous, and insisted that he felt he was going to have a great day. After the throwing started and his turn came, he evidently did not hear the first call and was somewhat startled by a second summons to make his initial tryout. He stepped into the ring hastily and without any preliminaries made his three turns and launched the discus; but in the hurried delivery the discus slipped out of his hand and shot down the sideline, end over end, through the air to a landing not at all representative of his great ability as an athlete. The announcer chose that moment to make his first announcement of the day on the subject of the discus throwing event. Some 83,000 or 84,000 spectators were in the stands, and Paul Jessop had barely taken his seat when the enunciator system blared forth the information, "That was Jessop, American champion, who threw the discus 128 feet." To an

Van Osdel, United States, and McNaughton, Canada, second and first place high jump winners.

Courtesy *Parks and Recreation*

athlete of Jessop's recognized ability, an announcement of that sort must have been profoundly disturbing. When he stepped into the circle for his second trial, he pressed and followed. On his third and final preliminary attempt, he was still pressing, could not apparently relax and get into a physical and mental posture which would release his energies, and made a third bad throw— only slightly over 140 feet—failing to qualify by several feet. I did not have opportunity to talk it over with Jessop after the event but until I hear from his own account some other reason for his failure to get himself together that afternoon, I shall always believe that America would have scored another sweep in the discus throwing events if it had not been for the ill-timed announcement calling attention to Jessop's first attempt.

Incidentally, it was during this event that one of the two serious lapses on the part of the officials occurred, and I was one of the guilty officials. There were 72 entries in the discus throwing contest, each allowed three preliminary attempts, the six finalists to be allowed three additional attempts. At the conclusion of the preliminaries, the chief judge of the throwing events personally checked every throw of all of the 72 entries. This personal check of all the records required something over an hour to complete. Meantime, we who were judges out in the field shortly began to dodge practice discus throws by the athletes who knew themselves finalists. They were not content to sit, awaiting the resumption of the event, but wanted to keep warmed up; and nervous as they were, they took turns throwing from close to the official circle.

From the first day of the meet, the judge representing Japan who was associated with us—Mr. Katsuga—had introduced a note of international goodwill into our relations by congratulating the judge representing any country whose athletes did anything of note during the day's program. When Tolan and Metcalfe raced abreast to the tape, he came to Racine Thompson and myself, representing the United States, and very cordially congratulated us on their magnificent showing. His example proved infectious, and in the fraternizing of the officials it became our habit to voice approval of the events as they transpired, as the program ran along. While still waiting official notification that the finalists in the discus throw had at last been definitely checked and officially announced, we were watching the pole vault progress. Previous to these games, the Japanese national record in the pole vault stood somewhere around 13 feet. Nishida, of Japan, that afternoon proved himself one of those rare athletes who is inspired by an extraordinary occasion to quite outdo himself. He fumbled a bit when the bar stood at 13 feet, and it was only on his third attempt that he barely skimmed the cross bar and made that height. Of the thousands who cheered him when at last he successfully negotiated that distance, I dare say that no one anticipated that he could possibly negotiate a still higher vault; but once he passed the mental hazard of beating the Japanese national record, he went sailing over the succeeding heights as the bar was raised, one after the other, apparently without effort. Presently he found that the pole vault had developed into a battle between himself and Miller, the only survivor representing the United States after Graber and Jefferson had fallen out. At a height of 14 feet, Nishida made two vain attempts while Miller successfully cleared the bar, establishing a new Olympic record. When he saw Miller, his adversary, clear the bar, Nishida rushed over to him with typically Japanese courtesy and very cordially congratulated his opponent on establishing a new Olympic record. The gesture was not lost on the crowd, which had come to expect fine courtesy and sportsmanship from the Japanese because of the way in which the Japanese sportsmen had conducted themselves throughout the contests, and when the announcer informed the assembly that Nishida was himself about to make his final attempt at 14 feet, judges and contestants out in the field went into a crouch and all of us focused our attention on the bar and the diminutive Japanese vaulter. Putting everything he had into the effort, Nishida sped down the runway to the standards and hurled his body upward in a final effort. To the unbounded delight of the entire assembly, he sailed over the bar, and the pole vault was again tied at the new Olympic record.

All of us who were officiating in the discus throw turned to congratulate Mr. Katsuga of Japan on this remarkable feat of his fellow countryman. Just as I was about to speak to him, I saw a discus come down out of the sky a few feet from where I stood. I assumed that it was another unofficial trial, until I turned to the circle and found that it had been made from the official ring, and that the judges there were expecting us to measure the distance. Winter, of France, sixth man to qualify, had been notified at the circle that he was first to throw in the final, and evidently, not understanding the announcer, who had called attention to the Japanese pole vaulter, he had proceeded at the same time that the pole vaulter was making his final attempt, to launch the discus, while we as judges in the field had been dropping down onto the grass to afford clear vision to those in the stands behind us. We had not been warned by the officials at the ring that the discus throwing was being resumed, and I believe I was the only one of the judges who saw the discus when it fell on the turf some 15 feet from where we were gathered. I had immediately looked away from that spot, however, to the circle to see who had thrown the discus, and I could not officially mark the throw. None of the other judges had seen it. There was nothing for us to do, therefore, but to ask Winter to throw again, which he was quite willing to do as his throw had not been an exceptional one. He immediately made another attempt, which was considerably better, and which won him third place in the contest. But the "panning" which we as judges got in the press next day helped us to keep our mind on our own work for the remainder of the Games.

The other slip on the part of the officials that was

widely discussed occurred when Roy Davis, chief lap scorer, was sent over to the swimming stadium to serve as starter there on the afternoon of the 3,000-meter steeplechase. His chief assistant lap scorer had gone to Catalina Island that day, and one of the other men assisting, who found himself responsible for checking the laps, knowing that the race was to be run on a 400-meter track and that it was 3,000 meters in length, did some mental arithmetic. After calculating, he said to one of the finish judges, "This is a 7½ lap event, isn't it?" The finish judge was taking his place in the stand for the event, and said, "I believe it is a six-lap race." But when the lap scorer rejoined, "My arithmetic indicates that a 400-meter track goes 7-½ times or thereabouts into 3,000 meters," they had no time for further argument. The lap scorer, of course, in his calculations failed to reckon with the fact that the water hurdle lay outside the track itself, and that the course of the race was enlarged to make this possible, so that the track no longer was an actual 400-meter one but was closer to 450 meters. In consequence of this error, he sent the athletes seven times past the finish line.

Nobody could be identified with the officiating, however, in the Los Angeles Olympics without feeling a lot of sympathy for the men assigned to judging at the finish. It will be many years before another race will present a more difficult problem to the judges than occurred when Tolan and Metcalfe finished their much discussed 100-meter dash. The electrical timing device started, of course, with the breaking of the circuit by the starter's pistol. From my position close to the finish line on the field, where I was crouched to watch the finish of the race during the suspended activities in the throwing events program of the day, I was certain that Metcalfe had won the race and went back and told my fellow-officials that Metcalfe unquestionably was the winner. Concluding the throwing events, I went up and sat opposite of Coach Stagg of the University of Chicago, and also had a chat with Pop Warner of Stanford. Both of these men of long experience in athletics agreed that Metcalfe broke the tape.

Their analysis of the finish was startlingly borne out by the motion picture camera. Metcalfe's superhuman drive at the finish carried him from a position inches behind Tolan one step from the finish line to a position inches ahead of Tolan a step beyond the finish line. It was an unbelievable spurt by which he lunged to the front to breast the tape ahead of his competitor. The motion picture camera proves that Metcalfe broke the tape, and the time establishing a new record was of Metcalfe's and not of Tolan's making. Under the rules, however, Tolan won the race, and the rules being what they were, the judges at the finish were correct in announcing Tolan as the winner, although probably a great majority in the stands disagreed. The peculiarity in the rules which brought about this situation lay in the fact that the International Committee—America dissenting—adopted in Los Angeles a rule specifying that the man whose torso first passed *through* the finish line won the event. Metcalfe is a bigger bodied man than Tolan, and the motion picture camera showed that Tolan's body was first to pass completely through the imaginary finish line. Study of the film shows the event about as close to a dead heat as could possibly be the case, but Metcalfe actually had a fraction of an inch lead on Tolan at the tape, and Tolan's body, by about the same fraction of an inch, passed

(*Continued on Page 54*)

Modern Discus Thrower by R. Tait McKenzie

Courtesy *Art and Archaeology*

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An American System of Physical Education

FOR many years it has been the general impression that there is no such thing as an American system of physical education. In keeping with this thought, it has been quite generally considered that America has possessed herself of an eclectic system, one that borrowed liberally of the most favored elements of European systems and then compounded them.

It is true that many of the features of the physical education programs of American schools are taken over outright or in a modified form from German, Swedish, Danish, English, or other sources as the case may be. It is just as true, however, that America has not been a mere imitator, but has on the contrary contributed many ingenious and significant developments to progress in this field of education.

The time has passed when the onlooker in the gymnasium or on the play field can see a lesson from one of the classic European systems taught in strictly orthodox fashion in one of our schools. The time is also rapidly passing when such an onlooker can see a lesson made up solely of selected constituent elements of the several European systems. Instead, the time is now at hand when out of the great chaos of experimentation that has been going on, there is emerging a sufficient standardization of physical education activities and a sufficient accumulation of indigenous material, to warrant the name—an American System.

What are some of the distinctive American developments? The emphasis on individual differences is one. This means considerable choice in the selection of activities so that classification now takes place on the basis of individual preference and needs rather than on the old basis of formal and informal. Again, in no other country has there been so lavish an application of time and energy to the field of testing—whether organic, physical efficiency, motor ability, motor achievement, knowledge, or otherwise. The breaking up of team games and recreative sports into elementary skills that can be taught *en masse* and that can be used for mass competition is another welcome addition to the modern physical education program. It is a trend that stresses not isolated skills but rather skills that can be used in leisure-time avocations both in school and later in life. The introduction of squad competition in team games into the daily lesson is a development strictly American because, peculiarly enough, the English people, so well known as advocates of team games, have been prone to use the Swedish system of gymnastics for their prescribed program of physical education. Upon the empirical English belief in the social values of games and athletics, the American authorities are superimposing scientific approaches. At the present time, also, we find that new aesthetic interests and appreciations are being cultivated. While the field of the dance is still very much unsettled, American teachers have been original in many aspects of the interpretative field, noticeably of the machine age, and have been instrumental in reviving much dance material from primitive sources. Other innovations that possibly should be mentioned are the tieing up of physical education with scouting and camping projects and the tendency to correlate the program still more closely with other departments of the school. In all these developments the physical educators of America have left routine and explored paths and have struck off into adventuresome byways.

In reiterating that there is now a truly American system, and one that can be so named, there is no tendency to belittle the work of other systems. They have played a major part in our own past by focusing attention on the need for physical education and by creating a public support for physical education among citizens of the community. True, they may be outworn or out of place when judged by the standards of today. Nevertheless, it should be remembered that they were as well adjusted to the spirit of their age as are our own current programs to present-day American life. Our program, therefore, if it is to progress, must not be static but must make changes to keep in harmony with the developments that social evolution will inevitably bring to the future. In fact, our usage of the word "system" throughout this editorial carries none of the limitations implied in the former objectionable connotations of rigidity and finality. Instead, in asserting that there is now an American system of physical education, we have in mind a program which is rapidly becoming more distinctive, orderly, and uniform, but which is nevertheless always subject to the natural process of change and growth.

The Eighth of the Ten Cardinal Points

THE accreditment of health and physical education in all schools and colleges for graduation and the acceptance of such credits from high school for college entrance. The close study of a problem ought to bring to those who engage in it, a familiarity and sense of reality—not shared by those who have given the matter little attention. Moreover, the former are in a position to be enthusiastic and even willing to crusade for it, while the latter may

manifest indifference. Doubtless, it is this state of affairs that accounts for the slowness in securing accreditment for health and physical education in all schools and colleges.

It is important to remember, however, that in any general adoption of new ideas time is the essence and work the ever necessary yeast. Gustave Le Bon in *The Psychology of Peoples* writes: "Whatever the nature of the idea, whether it be a scientific, artistic, philosophic, or religious idea, the mechanism of its propagation is always identical. It has to be adopted first by a small number of apostles, the intensity of whose faith and the authority of whose names give great prestige." Le Bon notes how long such pioneer work requires as follows: "In a century in which everything proceeds with such rapidity, and in a field in which passions and interests have little play, the implanting of a fundamental scientific idea requires not less than twenty-five years."

Apparently courage and patience are great virtues and we who would wish to see our dreams realized now must arm ourselves with these two qualities. That victory will come from devoted service to a fundamental idea is also evident. By *Jesse Feiring Williams, M.D., Columbia University, President of the American Physical Education Association.*

International Olympic Conference

THE present issue of the JOURNAL, as our readers will notice, is devoted to the publication of the Proceedings of the International Olympics Conference on Physical Education, held in Los Angeles last summer on the occasion of the Tenth Olympic Games. This important series of lectures is made available through the cooperation of Professor William R. LaPorte of the University of Southern California, who was chairman of the arrangements and presiding officer at the meetings. In view of the significance of such a conference and the value of these addresses by such world known authorities, the JOURNAL takes pleasure in presenting to its readers the full Proceedings of these international meetings combined in one issue. A certain delay was inevitable because it was necessary for Professor LaPorte to have certain of the articles by foreign authors translated and edited. The two descriptive articles which appear first in the JOURNAL are not part of the official Proceedings but have been requested by the Editor in order that many readers who were not able to attend the Games might have a graphic picture of them as presented by observers in attendance. The table of contents is listed below. The lectures follow in the order of their presentation in the series.

International Olympics Conference on Physical Education

Special Series of Lectures Under the Joint Auspices of the University of Southern California, Los Angeles University of International Relations, American Academy of Physical Education.

Daily Lectures in Bovard Auditorium on the Campus of the University of Southern California, Los Angeles, California—July 25 to August 5, 1932.

THE NATURE AND PURPOSE OF THE INTERNATIONAL OLYMPICS CONFERENCE. By Wm. R. LaPorte, Chairman, *Professor of Physical Education, University of Southern California.*

YOUTH AND LEISURE: THE IMPORTANCE OF RECREATION. By Noel Curtis-Bennett, K.C.V.O., *Vice-President, National Association of Boys' Clubs of Great Britain, Honorary Treasurer of the National Playing Fields Association, England.*

CULTURAL ASPECTS OF PHYSICAL EDUCATION. By Jesse F. Williams, M.D., *Professor of Physical Education, Teachers College, Columbia University.*

SPORT FOR THE PEOPLE. By Carl Diem, M.D., *General Secretary, German National Commission for Physical Education. Medical Adviser, German Olympic Team. Member of the International Amateur Athletic Federation. Director of the German College of Physical Education.*

PHYSICAL EDUCATION, ATHLETICS, AND MENTAL HYGIENE. By Professor A. Latarjet, *President of the International Congress on Physical Education and Sports.*

PHYSICAL EDUCATION AND GENERAL EDUCATION. By Dr. Coleman R. Griffith, *Professor of Physical Education, University of Illinois.*

THE RELATION OF ORTHOPAEDIC SURGERY TO PHYSICAL EDUCATION. By Charles L. Lowman, M.D., *Chief of Staff, Los Angeles Orthopaedic Hospital School, Lecturer, University of Southern California.*

THE CONTRIBUTION OF JIUDO TO EDUCATION. By Professor Jigoro Kano, *President of Kodokan, Original Founder of Kodokan and Jiudo, Member of the House of Peers, Japan.*

THE ATHLETE IN SCULPTURE. By R. Tait McKenzie, M.D., LL.D., R.C.A., *Research Professor, University of Pennsylvania, Formerly Director of the Department of Physical Education, University of Pennsylvania.*

PHYSICAL EDUCATION IN FINLAND. By Lauri Pihkala, *Technical Adviser to the Finland Olympic Committee. Member International Amateur Athletic Federation. Director, Department of Physical Education, Civic Defense Guard, Finland.*

SOME OF THE PHYSICAL EDUCATION PROBLEMS IN POLAND. By General Dr. Stanislaw Rouppert, *Vice-President, Scientific Council for Physical Education, Poland. Chief of Sanitary Division, Ministry of War; Member, International Olympic Committee.*

THE DEVELOPMENT OF PHYSICAL EDUCATION IN FRANCE. By Dr. Bellin du Coteau. *President of the French National Federation of Medical Societies, Physical Education and Sports.*

The Nature and Purpose of the International Olympics Conference

By

WM. R. LaPORTE

Professor of Physical Education

University of Southern California

Presiding Officer

IN PRESENTING this special series of lectures by recognized international authorities in the physical education field, the sponsoring institutions feel that they are making a distinct contribution toward the development of friendlier international relations as well as toward general educational progress. Certainly at no time in the world's history has there been greater need for a careful and serious consideration of world needs in terms of the contribution that education can make.

Physical education with its many branches has become a recognized and imposing division of education the world over. It is accordingly appropriate that analysis should be made from time to time of its contribution to education through its many divisions. It is appropriate also that various nations should become cognizant of the developments going on in sister nations. Even more important is the need for an increased international cooperation in forwarding the interests of education and particularly in helping to re-organize educational procedures in order that the greatest benefits might be attained and that education might increasingly become an effective weapon in the solution of difficult world problems.

Outstanding leaders in the educational field in recent years have become more and more impressed with the possibility of vitalizing education and motivating it for more effective results by the intelligent use of the play spirit and the principle of learning through doing. Only recently have educators fully awakened to the fact that the social-emotional life of the child is profoundly influenced by the manner in which he expresses himself through big-muscle activities particularly in the form of organized team play. Similarly it has been recognized that even in individualized types of muscular activities, the mental reactions are profoundly modified. The individual is stimulated and enthused by the realization of his own power and the mastery of his own body through the medium of varied skill activities, in themselves interesting. He is depressed and chagrined and perhaps distinctly retarded in his mental progress by lack of enthusiasm induced by repeated failure in the effort to develop himself and gain reasonable control of his body mechanism.

The former conception of physical education, play and athletic activities as merely an exercise medium for physical health purposes is rapidly losing ground. The organic and physiological values of properly directed big-muscle activities are still recognized and given due place in the objectives and expected results of the physical education program. On the other hand, however, more and more emphasis is properly being given to the even more important results to be secured in the development of a fine mental poise, in improved powers of attention, alertness, and judgment, growing out of repeated contacts with difficult mental-physical problems; in the development of finer social powers of adjustment, appreciation, and understanding, growing out of repeated exposure to varied social-physical situations in interesting sports activity; in the development of saner emotional poise and balance growing out of repeated efforts to control the emotional expression in highly stimulating activities where personal ambitions are constantly being pitted against social obligations.

If it is true that the big-muscle recreation activities do contribute in large measure to these various elements, which in the last analysis determine whether or not an individual will be a happy, contented, and useful citizen, surely it is important that they be given a large place in the program of education. Doubtless it is equally important that they constitute a reasonably large proportion of the leisure time of the adult after he has completed the formal aspects of his education. Stated otherwise, the education program should provide the individual with adequate skills and interests in a variety of big-muscle activities that can be used effectively and with distinct pleasure, satisfaction, and benefit throughout the remainder of his life as recreational activities for leisure-time use.

THE challenge of the leisure-time problem of the next generation is almost breath taking in its significance. Never before in the history of the civilized world have the masses of humanity been blessed with the amount of leisure time now available. For generations mankind has been crying for more leisure, an opportunity to do the things that are not required. Tomorrow, when the depression has cleared up, civilization will have dumped in its lap such quantities of leisure time that it will be helpless to control or make proper use of this increased leisure unless education is definitely re-organized to prepare for this problem. Increased leisure time, the rainbow pot of gold, for which humanity has been searching for many generations, will become like the "golden touch" to King

Midas, unless the present generation is given definite education and training in sane, satisfying, and worthwhile recreational activities.

Dean W. S. Russell of Teachers College, Columbia University, is responsible for the statement that "We are entering a new world. In the days to come there will be more leisure than labor. Failure to prepare for these conditions as in the past will bring disaster."[1] It is well recognized that a contented society must be a busy society

The old time leisure class was frowned upon because, having nothing to do, they tended to degenerate and became a menace to society. Fortunately, they were a relatively small percentage of the mass of humanity. The vast majority of men and women were kept busy at work from daylight to dark and perhaps later to make a living. The new machine age has changed this almost overnight. The failure of society to make a quick adjustment between this increased production and its consumption has created a tremendous unemployment problem with the consequent depression. There seems no possible solution for the depression except a re-organization of the economic and commercial world whereby each industry will be required to care for its proportionate number of men and women in society on the basis of a living wage and continuous employment. In other words, every family head must be guaranteed a job.

When this is done, in view of the tremendous development of machine production, society will face a practical situation where the majority of its workers will be on duty probably from two to four hours a day, and not over five days a week or the equivalent.

This means that the majority of society will be idle most of the time. *An idle society is a dangerous society.* Hence from the standpoint of self-preservation alone, civilization must work out ways and means of keeping the idle happily engaged in some kind of enjoyable, satisfying, and worthwhile activities of a commercially non-productive type. At one stroke this establishes the *leisure-time problem as the greatest industrial and social problem of the next generation.* At the same time it brings forward organized recreation as the best potential panacea for the ills of this next generation.

Immediately education is faced with the tremendous problem of training both youth and adults for wise recreational expression. Industry and leisure have become inseparable bed-fellows. The fate of one involves that of the other. The solution of one problem rests upon the solution of the other. They are inseparably united, and their fate must be decided by a sound program of education that will train economic leaders in methods of balancing their industrial budget of manpower, and at the same time train all members of society to use safely the increased leisure time that will inevitably be forced upon them.

The old social sedatives or medicines for idle men such as the saloon, the Saturday night spree, strikes, rebellions, civil wars, etc., must be displaced by the finer, more constructive activities of play, sports, art, music, drama, literature, and varied avocations and hobbies. A supreme challenge faces the economist-statesman-educator in the generation just ahead. He must adjust capital and labor. He must equalize production and consumption. He must provide a living wage and a permanent job. He must reduce work and increase play and make the two balance. He must, of necessity, create a vast leisure and then so organize and control it that he will make it an asset rather than a liability to society.

The great economic social problem pictured above is one to which physical education can contribute in very large measure. To secure the maximum contribution, however, will require the concerted efforts of all progressive educators in every country inasmuch as the modern developments in international trade relations and finance have created a situation where the well-being of any one country is highly dependent upon similar well being in sister countries. Consequently any educational conference or program that can bring about a better acquaintance with the problems of other nations and establish friendlier international relationships should be encouraged. It is the hope of the sponsoring institutions that this series of lectures may contribute much toward this end.

IT HAD been the original expectation that the International Congress of Physical Education and Sports would hold its annual meeting on the campus of the University of Southern California in connection with the International Recreation Congress and the Tenth Olympic Games. The University of Southern California had issued an official invitation to the Congress through the sponsorship of the American Academy of Physical Education and this had been accepted. Later the uncertain economic situation, particularly in Europe, made it inadvisable to continue the plans for the Congress inasmuch as so many European representatives would find it impossible to attend. The original plan for the official meeting of the Congress was accordingly cancelled and the University of Southern California was requested to offer as a substitute this series of lectures featuring representative international authorities in the field of physical education. Through the friendly interest of Dr. Rufus B. von KleinSmid, President of the University of Southern California and Chancellor of the Los Angeles University of International Relations, the lecture series was made a regular section of the annual Institute of International Relations, and the American Academy of Physical Education was asked to sponsor the series jointly with the University of Southern California and the Los Angeles University of International Relations.

Through the cooperation of Dean Lester B. Rogers of the University of Southern California Summer Session, the lectures were featured also as part of the summer session, and were made complimentary to the public. The dates of the lectures were so planned that

(*Continued on Page 62*)

[1]Dean W. S. Russell, "Leisure and National Security" *Recreation*, July, 1932.

Youth and Leisure:

The Importance of Recreation

By

SIR NOEL CURTIS-BENNETT, K.C.V.O.

Vice-President, National Association of Boys' Clubs of Great Britain, Honorary Treasurer of the National Playing Fields Association, England

OVER eighty years ago a famous authoress wrote, "Important as it is to organize the industry of the world, it is more important to organize and direct the leisure time of the world." If those words were true in the middle of the last century, they have had an even greater significance today when the vast strides made in the mechanization of industry have added enormously to the leisure time at the disposal of most members of the community. Indeed, the gradual reduction in the hours of labor—a process which seems likely for economic reasons to develop still further—has slowly but inevitably created fresh problems which are now facing not only Great Britain but every other civilized country throughout the world.

I think everyone will agree with me that the greatness of a nation is not in its material wealth, or even in its intellectual standard, but in the character and quality of its people; and no one will deny that organized team games teach character and for this reason are rightly coming to be regarded as a necessity and not a luxury.

Mr. J. Ramsay MacDonald once wisely said, "Let our young folks play, play manly games which train the eye and the hand and the spirit, which subordinate the individual to the team, the vanity and the egotism of the one to the honor of the whole company. The playing field is truly the trial practicing ground for the grand game of life." That has long been recognized by all the famous public schools of Great Britain, where an ample supply of well-laid-out recreation grounds is deemed to be equally as important as the provision of properly equipped laboratories, and where every physically fit boy or girl must take part in games.

What is the good of education unless we see that the child is physically fit to assimilate it—indeed, is there not a great danger in over-educating the mind without paying proper attention to the fitness of the body?

Instead of spending more money in increasing the accommodation in schools, let it be spent in providing playing fields and teaching the boys and girls to "play the game."

If the meaning of this is not learned primarily in the schools, it is unlikely to be learned afterwards. There is no need to exaggerate the importance of games and yet there are many schools without any playing fields whatever.

Can we wonder that the education given is of little worth—all that is really educative is missing—that great essential character training is pushed into the background. And yet surely there is some force in the argument that character is a more valuable national asset than intellect. I suggest to you it should be our aim to place the chance for outdoor pleasure with all it means within the grasp of the rank and file of the people, irrespective of class. Those engaged in industry need the opportunity for outdoor life and recreation no less than they need the opportunity for employment. The matter is psychological as well as physical. When Saturday comes and with it thousands stream out from office or workshop, school or factory, they go—great numbers of them—to watch other people play. A few will play themselves; but the great majority will pass their time of weekly leisure finding no outlet for the physical energy that is within them, much as they may need it; and this constant disappointment, this habitual denial of the means of physical expression, can produce but one result—the weakening and eventually the atrophy of the will to seek healthy outdoor physical recreation of one kind or another, with all its reinvigorating refreshment, both of mind and body.

If at a stroke we could transform the passive onlooker into the active participant of organized games, what a revolution it would bring about! Thousands of young people would be learning the team spirit and experiencing the thrill of playing for a group, and life would have a contrast, and so gain value. Children would have a place in the *sun* as well as a place in the *slum*.

I HOPE that, more and more, recreation will come to be regarded as the most important field for constructive voluntary service. For the mechanization of industry is likely to go even much further and to be followed by two consequences that are both important in the connection we are discussing. In the first place, it will tend to reduce for large numbers of people scope for developing through their work the varied powers they possess. More and more industrial employment is likely to be largely a matter of routine and repetition —needing certain high qualities of self-discipline and skill that are by no means to be despised, but yet are limited and restricted in their range. More and more,

therefore, those who are employed in a modern and fully mechanized industry must find scope for the all-round development of their faculties, largely in the hours available for recreation. And that leads me to another consideration which is likely to lend increasing importance to this question of recreation. There seems little doubt that as command of mechanical process is developed, as our understanding of economic forces grows, and the organization of production and distribution is perfected, the hours of work will be progressively reduced and the hours available for recreation will correspondingly increase.

Holding these views, it is natural that I should be concerned to ensure that the activities of leisure hours shall indeed be recreative. Holding these views, I am disturbed by the knowledge that many of these most precious hours are either killed or misused. Holding these views, I must give recreation a high place in the range of services that are open to the volunteer. I can indeed conceive no finer service than that which helps others to turn those hours to good account.

The ample provision of social service by the state, by communities, and by kindly groups of people, has probably exercised some natural tendency to lessen, if not to rid, the ordinary individual man and woman, boy and girl, of that inherent sense of the need, and indeed the duty, of *personal* social service on his part and hers; it has probably encouraged a tendency to take the provision of these things for granted, a readiness to receive and perhaps even an expectancy to receive, without at the same time inculcating that readiness to give which is the only justification and sanction for the privileges of citizenship. Let us try to inspire something of a new and keener spirit of service and self-help in the rising generation; a consciousness that the amenities of life, like the essentials, are best secured to a community by the personal efforts and individual contributions of every member of that community and are not a sort of heaven-sent manna to be garnered and enjoyed without effort, service, or obligation.

Personally, I do not wholly believe in the superiority of "the good old days." I distrust the attitude of mind which laments their passage and I dislike the people who are forever criticizing present-day popular behavior. The man who mocks at an English football crowd is, in my view, mistaken. Much that is good has been learned from watching football. In any case, our job is to understand, if we have enough imagination, what it is in football that enlists the enthusiastic interest of so many folk, and to see how far we can help to develop the instincts on which that interest is founded. No doubt they are many. Among them is the traditional interest in games, of which we are proud. Let us then not waste time in regretting the number of people who are content to watch games but lend all our energies to the task of increasing their opportunities to play games themselves, helping them to play them well and in the spirit of good sportsmanship. Those who lament so loudly that people are content to be spectators would be sadly embarrassed if all spectators demanded the right to play themselves! No, our task is not to condemn popular tastes but to accept and exploit them.

THERE is about us today an uncertainty, and that is what I think we all feel. When, however, we look around and think of the improvements which have brought nations into closer touch with each other; when we acknowledge that the fruits of this world can be distributed to all its parts for the greater happiness of its people; when, in these days, the store-bins and warehouses are full to overflowing; when it would seem that almost anything is possible for the greater well-being of mankind—it seems indeed a tragedy that in these days we find a world distraught; a world suffering from the pains of stupendous armed conflict, and a world struggling to adapt its faculties to the new circumstances which have arisen because of the conflict and the injuries.

We live in a mechanical age when mechanisms and material things seem to be all-important to most. We live in an age when man's intellect is concentrated on producing something either in greater number, or bigger, or faster than that which has been produced before. It is an age which acknowledges success but is not an age which acknowledges the virtues. The simple virtues are our friends.

Life is more than failure and success, more than money and pleasures; and the acquisition of material things is not life's purpose.

There is a life apart from work and apart from play—yes, there is a life where man can play and not know staleness; a life where man can work and not be tired. It is the life with our friends, the Virtues, in the fields of mutual social endeavor. It is the life of devotion and duty, the life of selfless sacrifice to the ideal of humanity.

I BELIEVE mankind is on the threshold of spiritual as well as material greatness; therefore, it is natural to turn to YOUTH and ask it to remember that it is young, to recognize that, in due time, the work of the world will be placed on its shoulders for it to carry. Let Youth feel its young energy and know that it needs action and that it is not intended that it shall always be a spectator of life. Let Youth make friends with the Virtues and keep the friendship warm. Let Youth seek out, now, Sincerity and Courage and remember that those two virtues are Youth's friends. Let Youth come forward now and test itself, remembering that nothing which is really worth having is easy to win.

Let YOUTH, therefore, be sincere in purpose and courageous in action. To resolve to use its strength and to be guided and inspired always by the ideal of simple goodness and common humanity.

Remember that the hardest enemy to beat will be Indifference. There are too many of us who treat the affairs of our country as though we were watching something on the screen from a comfortable seat in the

(*Continued on Page 54*)

Cultural Aspects of Physical Education

By

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THE CULTURE of a people comprises the entire sweep of life and includes the whole range of activities in which they engage. All their activities contribute to the cultural level. It is therefore a partial view that regards the fine arts *only* as cultural. "Culture means all the fine arts and the useful ones as well. The painting of the last supper by Leonardo da Vinci is a part of culture; and so is the white washing of farmer Jonathan's corn crib."[1] The library that houses ten thousand titles is a part of culture and so is the football team whose exploits on the gridiron build the library.

There is a disposition, but surely not a growing disposition, to classify the cultural achievements of a people in water-tight compartments. It should be remembered, however, that the man of letters, often a popular synonym for culture, represents in his special interest only a phase of life. For us to think of culture in this limited sense is to ignore the implications of living as it goes on in the life of many peoples. The classical tradition with its emphasis upon the humanities too frequently remembers the past and forgets the present out of which all past developed. Life is too dynamic for a rigid classification, and yet the effort to pour life into set molds, that continually crack for lack of elastic qualities, goes on. This is an old practice. It is as old as ancient China, or the teaching of Mohammed, or the peripatetic wanderings of the Jesuits.

It is clear, of course, that distinctions have always been drawn and will always be made between those who have and those who have not. Culture has its high and low points and certain qualities highly valued by the group will always secure a superior recognition. In the days of chivalry, a man of high culture could ride a horse and handle expertly the lance, the bow, and the sword. But cultural values change as the needs and ideas of the time alter the demand for their possession.

Many of our current notions of culture come from a by-gone age and persist in spite of rapidly changing needs. It is so difficult to change social behavior that practices arising in a period of darkness may remain long after in a period of abundant light. An example of this is the abortive attempt to cultivate the spirit as something quite apart from the rest of life. At one time, of course, a thorough-going effort was made in this direction. From the fourth to the fourteenth century, Western European thought was molded by the belief that spirit only was the true reality. Discipline of the spirit was the supreme and single goal. Vestiges of this discipline of the super-sensual remain in our western world today and our speech, customs, beliefs, and attitudes reflect our devotion to this culture of the spirit.

THE culture of the mind has never declared so boldly its principles although its practice in schools and colleges for generations needs no descriptive statement. Obvious examples of its existence are observed in the attempt to restrict public school education to what is seriously called *solid* subjects. Even important and responsible officials are so devoted to a mind culture that, like many school teachers, they would much prefer to have only the brains of children come to school. Periods of economic depression are apt to produce many queer prescriptions for correcting economic ills, but nothing more ridiculous will ever be seen than the devotion of partially educated persons to the profound limitations of mental culture. The play, dramatics, and developmental activities of children may continue to suffer from the practice that attempts to classify them as frills in education, but the cult of mind is as doomed to failure as the cult of spirit.

And yet, the culture of mind as mind presents a captivating prospect. There are so many real values arising from good mental action that the fallacy of mind culture is insidious indeed. Under the tutelage of professors devoted to the theory of mental discipline, students are sometimes led to expect results quite beyond the power of the subjects they pursue to bestow. For life and living as it goes on, learning is mere lumber unless it is touched to issues that are significant. The graduation from college and university of thousands of young men and young women who are willing to let bosses run politics and gangsters rule cities is neither an admission of failure nor a condemnation of human nature. Education in America has never tried seriously to train young men and women to serve society, and human nature has possibilities that promise greatly in such an educational venture. Neither the sterile classicism of a Flexner nor the narrow vocationalism of a society devoted to monetary values affords an answer to the problem. Mental culture may, therefore, be as unproductive of social good as monasticism with its negation of everything but spirit.

THE cult of body is of course the most absurd of these three aspects of life. It is merely another view of that narrowness and failure to understand that

[1] J. K. Folsom, *Culture and Social Progress*, p. 16.

fostered the cult of mind and the cult of spirit. The athlete who centers his whole effort upon physical achievements to the substantial neglect of other aspects of his life is as mistaken as were the followers of St. Simon Stylites in their cells and wells.

Any argument for the cultural significance of physical education must rest of course not upon the claims of a physical culture, but upon the urgent requirements of a philosophy of the whole man; not upon the premises of a philosophic dualism, but upon the clear and scientific evidence of unity. The soul has always been a difficult subject even for the scholastics but the body has equally confused our thinking. Recently, the mayor of a large city, not a futile fashion plate, but a real mayor, attempted to welcome the visiting delegates of a physical education convention. He spoke of the activities of physical education as being good for the muscles and the work of the classroom as being good for the mind. This represents a confusion in the effects and relationships of human experience that is quite general. It is not surprising, therefore, that old concepts continue to mislead us concerning the relationship between the physical and the psychical. There are two more or less well defined views: the ontological and the teleological. The ontological concerns mind and body as disparate and separate entities, each subject to growth and development apart from the other. The teleological supports a more modern conception and instead of a material body and an immaterial mind, we are concerned with a thinking, feeling, acting organism. In teleology, mind and body are one, a unity that Browning with poetic insight understood:

"Nor soul helps flesh more now than flesh helps soul."

What philosophers and poets have discerned, modern science has described. The unity of organic functions is so clearly established that biologists and psychologists are saying that thinking is not a function of the brain any more than walking is a function of the legs, but that as we walk with the entire mechanism so also thinking is an expression of the entire organization of man. Thus glands and muscles, as well as neurons, function in thinking. Indeed, mind and body are one.

THIS emphasis upon unity does not deny of course that certain organs play a major rôle in certain functions. One needs brains for thinking as surely as one needs legs for walking, but so well established is the notion of an exclusive relationship of one organ to one function that the implications of modern science in these matters have been neglected for years.

It is therefore apparent that the very large values placed by some persons upon mental and spiritual attainments do not justify either a denial of their physical basis nor disregard for frankly physical values. While Socrates with a headache may always be, as Professor Thorndike suggests, preferable to a brainless Hercules, the business of education is to avoid such extremes. The outstanding fact in human nature is a unity of the physical, mental, and spiritual in individual life.

If we regard, then, human actions, as expressions of a unified mechanism, the cultural implications of such unity become identified with physical activities quite as surely as with other forms of human experience. Nor is it necessary to urge this view without evidence or support that comes from experience. There are significant historical examples for us to contemplate in this connection. Centuries ago physical education was planted—a slip from the wisdom of intellect and understanding. There on the shores of the Aegean Sea it grew into a sturdy plant destined to nourish with its roots the future citizens of Greek City States. From that vivid life of the Greeks, we hear Plato exhorting his fellow citizens "to blend music with gymnastics" and we acclaim the product as we watch the parade of finely educated youth passing from the palestra into Greek life.

Physical education, a cultural contribution to life, was not destined to enjoy permanently a place of preference. Monastic ideals changed that; military conquest cheapened it. The withering hand of asceticism laid upon the physical body of man is of course a sharp departure from that purpose that drove the Roman youth through military exercises upon the Field of Mars. Physical education flowering in Athens only to wither in the ascetic sun of another age or to grow rank and coarse in the service to tribal welfare, is the familiar story of great causes lost to foreign gods. When the philosophy of the day expounded harmony and beauty, the cultural meanings were rich and abundant, but when civil power through military conquest was the *summum bonum*, or when the goal of human effort was to reach God by a denial of the physical, then the meanings were indeed different. Cultural aspects of physical education are to be always described in terms of the ideas of the people of the time and of the place.

THESE observations regarding the nature of culture and the nature of man lead to an inquiry into the specific ways in which physical education contributes to American culture. It is obvious of course that it is now making a contribution since all the activities of a people express their culture. As teachers, however, trained and set apart to be responsible largely for the transmission of the best in our social inheritance, we are devoted to the social good and purpose therefore that the cultural contribution of physical education shall be as significant for society as possible.

In the first place, it is important to promote constructively a way of living that will contribute to the void left in social relationships by the clear rejection of the Puritanic philosophy. People are getting over the fear of play and yet they have not fully accepted the idea that recreation may be a fine and worthy phase of fine living. The Christian civilization that was devoted to the bearing of crosses is rapidly passing away but too frequently one observes that the new mood expresses only the notion that "life is just a bowl of

cherries." The reaction against immensity may result in nothing more than triviality. It is obvious, also that any illy-conceived life may be a cross, whether we reject crosses or not. When the goals of living become nothing more than toddling to a competency and when the seeker of wealth, luxury, and retirement achieves only diabetes in the end, the rejection of crosses by the modern world becomes absurd.

The loss of a celestial crown does not seem to be a serious matter to many people today and consequently countless numbers, unmoved by fear of eternal punishment, find no great urge to live finely, to develop fully, to realize the best in human protoplasm. In this situation, teachers of physical education find themselves in a high calling. The vivid days of adventure in rugged games or the rapturous hours in art, pantomime, and dance call us to the real business of education. These are the great movements when we lead boys and girls and help them to set forth in the great adventure of self-development, self-improvement, self-discipline. Mark you well, we are dealing with more than gobs of protoplasm. There are the possibilities of great living in all of us. The teacher of physical education aware of his world will understand that physical education is more than exercise, more than winning teams, and more than dance dramas. It is a way of living, a way that escapes disillusionment on the one hand, and cynicism on the other. It is a way that knows values, places a worth upon significant measures, and avoids the picture that Browning presents in *My Last Duchess.*

> She had a heart, how shall I say, too soon made glad,
> She liked whatever she looked on—and her looks went everywhere,
> Sir—'twas all one: my favor at her heart, the drooping of the daylight in the west,
> The bough of cherries some fool broke for her in the orchard,
> The white mule she rode with round the terrace
> All and each would draw from her alike approving speech or blush at least.

In developing the idea that physical education is a way of living, we shall come in time to emphasize what the last few years have taught many people who are now able to understand.

The last few years have taught many people to distinguish between the shifting and the abiding, between the temporary and the permanent. Some have lost fortunes and have found interests, appreciations, and satisfactions that depressions can neither break through nor steal. People today who can play, in whose lives recreation has a real and significant part, are able to check such values against the disillusionments of others.

Physical education teaching a way of living will be called upon to combat the cynicism and skepticism that arise out of a rapidly changing course of a modern scientific civilization.

We have listened to strange reasoning in recent years. The Joyces, the O'Neills, the Huxleys, the Cabells, driving ahead in their search for the real, have appeared at times ready to assume that only the gutter is true since so much that was comfortable and consoling has turned out to be false.

Ours may well be the professional group to save man from insanity and his nervous system from the wreck that it promises us so surely to become. Gone are the days of physical education as a disciplinary drill in the classroom to keep children in order. Now are come the clear demands for positive moods and responses that may make life reasonable, happy, and sane. Physical education will make possible this contribution to our common culture by developing, expanding, and distributing the idea that play is a worthy part of the good life, that fine recreation is not only compatible with but essential to fine living, and that devotion to work and neglect of play are as injurious to a fine life as over-production of goods is injurious to economic life.

IN THE second place, physical education in its cultural contribution to society is to be judged by the interests and skills it produces for leisure time. The physical illiterates of our age are dependent largely upon passing amusements for their leisure hours. Leisure, this great gift of the twentieth century, finds us quite unprepared both in facilities and in skills, to give ourselves to the joys of creative and expressive activities. Indeed, our emphasis upon a narrow vocationalism in education, our disposition to exalt the so-called solid subjects and to disparage the so-called frills in education have contributed to a state of mind that is typically found in business and in industry. A paradox of the industrial world is that the greater the amount of leisure produced by invention and management, the more hurried, distracted, and feverish our lives become. "The burden of our civilization," says Tawney, "is not merely, as many suppose, that the produce of industry is illy-distributed, or its conduct tyrannical, or its operation interrupted by bitter disagreements. It is that industry itself comes to hold a position of exclusive predominance among human interest which no single interest is fit to occupy—industrialized communities neglect the very objects for which it is worthwhile to acquire riches in their feverish preoccupation with the means by which riches can be acquired." We are unable to use for human happiness the magical liberation from the bond of labor undreamed of by our ancestors. We fail again and again to use this glorious thing, leisure, because of habits, preoccupation with small things, our woeful lack of education for leisure, and the mood of strenuosity that sits so heavily upon us.

Physical education will enrich American cultural life as it awakens interests and promotes skills that serve people in their leisure hours. The sterilized calisthenics in the classroom of a previous generation, and still found in some pauperized programs today, are responsible for those poor benighted souls who in adult life have to depend upon radio exercises and similar imbecilities. Doubtless we will make little gain in the use of leisure until we overcome the notion that play must be profitable. In physical education we have been

ready to recommend golf or tennis for their health values, when we should have insisted that their values may be more mental and spiritual than physical—in this respect greatly like sitting in the garden and listening to music, or just sitting in the garden. All of us have been indoctrinated by the wishes of our school teachers not to let the golden hours slip by when it would have been the part of wisdom to understand that they are only golden when we let them slip. That is what makes them golden—the slipping.

Instead of golden ones, the hours are apt to be rather drab, dragging moments unless we have interests and skills. A physical education that awakens interests and promotes skills for leisure hours is a significant cultural agency.

IN THE third place, physical education will enrich American culture as it offers opportunity for self-expression in play and art forms. The dance, pantomime, and various dramatic representatives are art more than hygiene, and nothing so impoverishes the cultural significance of dancing as thinking of the dance as a means of exercise. The narrow utility that so often mars sports kills dancing.

Regard for the art forms of physical education and emphasis upon expressive moods and patterns run risks in education and in life because moralists are apt to speak with considerable conviction upon these activities. Moralists have generally in the past regarded play and art with a censorious eye and "have often thought themselves carrying matters to the pitch of generosity by conceding that play and art may be morally indifferent or innocent." Dewey, with convincing emphasis, reacts to this notion with the unequivocable statement: "Play and art," he says, "are moral necessities." If his view is accepted, how shall we characterize that which marks the actions of those who are eliminating from school curricula the art and physical education programs? When Voltaire was insulted by the London mob he turned at his doorstep and complimented them upon their love of liberty and their glorious constitution. The mob did not understand. Would our politicians, our substantial citizens, our educators who fail to recognize the place of play in modern life, understand if we complimented them upon the profundity of their intellect?

Dewey makes the suggestion that "play and art have an indispensable moral function" in the relief from activity that is purposely moral. The science of play and art is to engage and release impulses in ways quite different from those in which they are occupied in ordinary activities. Their function is to forestall and remedy the usual exaggerations and deficits of activity, and to prevent a stereotyping of attention. Whatever deprives play of its own careless rapture thereby deprives it of its moral function. Play then becomes poorer as a matter of course, but it also becomes in the same measure less effectual in its pertinent moral relationships. Its chief rôle is its freedom from restrictive forms and its expression of the self in chasing and fleeing, in dramatization of heroic moments, in captures and capitulations. Thus rigidities are softened, strains relaxed, bitterness allayed, moroseness dispelled, and the narrowness of specialized tasks broken down. The self-expressive activities of a people mark the culture that is theirs. So true is this that one might well say, "Tell me what you play and I'll tell you what you are."

FINALLY, the cultural aspects of physical education are to be assayed in terms of the interrelationships that result from an education of the whole man. L. P. Jacks reports the remark of a speaker at a meeting called to protect the countryside from the invasion of ugliness that everywhere rears its head in commercial enterprises. The speaker said, "You will never keep your beautiful England until you get a beautiful people to live in it," and Jacks himself interprets what he meant by a beautiful people. He says that by "a beautiful people" he meant simply a people whose bodies had been liberally educated to correspond with a liberal education of the mind, and to support it at every point; the eye trained to see beauty and to value it, the ear trained to hear harmony and to resent discord, the hand trained to fine craftsmanship, the whole man, mind and body together, trained to creative activity.

The human neuro-muscular mechanism is wonderfully constructed for the performance of skills. It is naturally skill-hungry, and until that hunger is satisfied, there is ill-at-ease, a craving for satisfactions, an inner urge to kinds of living that have been denied. The poet sings of the lark's song, the rose's splendor, the violet's perfume, but these appeals to the senses of hearing, sight, and taste are no more inherent, no more urgent, than that kinesthesia of the joints and muscles which the sculptor, painter, and photographer capture for us. A fastidiousness without wisdom has created absurd prejudices against muscle, but the examples of badly educated athletes or brainless Hercules scarcely justify the snobbery that exists. As we come to appreciate the cultural meanings of physical education, the intellectual respectability of muscular skill will be recognized. Kinesthesia will come into its own with an education of the whole man.

"Both were faiths and both are gone," said Matthew Arnold of the old Greek and Norse divinities. It might be the business of the scholar to ask where they have gone, but it is of more importance to inquire, what has taken their place. As the old divinities of fear of and disregard for play disappear, as the insistent demands of leisure for interests and skills sharply increase, as play and art gain a respectful place in the scale of what is of most worth, as the present partial education of man is replaced by a thorough-going education of the whole man, physical education will gain in the affections and respect of people. These are its cultural opportunities. To these purposes, we stand ready to devote our best energies. We ask those of like minds to accompany us in this significant adventure in American culture. The road is open, the highway of better living ahead.

Sport for the People

By

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ALLOW me to begin my paper with a little paradox: It is not so important that those people practice sport who *do* practice sport, as that those practice sport who do *not* practice sport.

That means, that the thoughts of a friend of the people should concentrate upon finding how it might be possible to get that part of the people to enjoy bodily exercise, the vitality of which does not suffice any longer to induce it to act of its own accord. The others, the happy possessors of a strength that is brimming over, are sure to help themselves, and if somebody should take from them the beautiful establishments they have created for themselves, then they would be certain to build new ones tomorrow.

Sport exists for all people, poor and rich, high and low, man and woman, young and old. During the days of youth it shall build up the body, in old age it shall keep the body young. By its help woman shall be prepared for her highest task: Motherhood. By it, man shall develop the male instincts of energy and of creative work. By it, the statesman shall—for a short time—be released from his cares and acquire a state of mind enabling him to think without concern. By it, the poor slave shall find occasion to shape his hour of recreation in his own way and to distinguish himself. By it, the rich man shall recognize that the poor man too is, like himself, endowed with the same ideals and the same conceptions of fairness, and the poor man shall see that life can hold ready for him many joys costing nothing, and that there exists a platform on which nothing matters excepting own personal work and own personal human value.

As to the State itself, the generalization of the sport, making it everybody's habit, means: health-policy, culture-policy, humanitarian and peace-policy.

Sport means health-policy, inasmuch as it can be proved that the number of cases of illness is lowered through the cultivation of bodily exercises. For instance: Fifteen per cent of all illness is colds, a great part of which is avoidable. Besides, the cultivation of bodily exercises produces that positive health caused by the accumulating of reserve powers of the body, which make a stand against the assaults of disease and against eventual sickness. Sixty per cent of all accidents happen in consequence of awkwardness, which means that they are avoidable. The phrase given by America to the world, "Safety first," may be supplemented by, "Dexterity gives the best safety!"

Thus, sport gives safety of life. And this again is an important economical factor because sickness and accidents weigh upon the cost of production.

Sport means culture-policy inasmuch as it teaches even the coarsest lad some understanding of rules and fairness. He must continually try to model himself, try to perfect himself, if he aims at sporting results. Strength, perseverance, presence of mind—all these are moral qualities that perfect a man, lifting him out of the flat "nothing-but-existence." A new feeling of the body, a new feeling of life flows through him. Culture of the body means not only bodily strength and the training of the body, but is an essential part of the general education. All values, of any mental kind whatever, are dependent on one condition, and that is they are carried about by a living human being, living only by means of its body. And this body itself—as the bearer of everything mental—is capable of culture in its most literal sense. It is not only the vessel for the spirit, but it is itself a piece of spiritualized nature.

Now, having to do with the whole human being, the importance of sport with respect to the humanitarian policy is evident. A great German party politician once confessed to me that one cannot hold a political meeting on a day upon which a big game of football is to be played. The simple, unsophisticated man feels somehow that there is something transcendental involved in sport, that this secret something lying beyond is reflected in the sporting contest, a something, "The human will mastering everything," which cannot be explained materialistically on the basis of processes of the change of substance. And in this worship on the part of primary humanity—even if this worship should assume ever so primitive or sometimes even ludicrous forms—something is telling us that an ideal, common to all people, is involved, respecting which they all feel some kind of mythical veneration.

Pure reason tells us that it is absolutely immaterial whether Mr. Nagasaki of Tokyo or Mr. Yrjola of Helsingfors wins the Marathon race, or whether a young man jumps one centimeter higher than another. Sober common sense tells us that it is absurd to get excited for that reason—but yet, the world *does* get excited for this same reason. Such races *do* form the favorite thoughts of innumerable persons the whole wide world over, and therefore Los Angeles was recently the center of all young-feeling hearts in the whole world. Sport is humanity's most valuable possession.

But every nation has good cause to practice humanitarian politics, because these are the best national poli-

tics. Every citizen will create for his native land as many lasting values as he performs tasks that are useful for humanity. Nationalism and internationalism are not in opposition to each other, but are only two different ways of expressing the same striving which has been clothed in the following words by the Christian faith: "Thou shalt love thy neighbor (as thyself)!" In this sense, every state should pursue humanitarian politics, and to these also belongs a sound sporting policy with its place in the first ranks.

THREE conditions to be fulfilled will lead to the aim in view: (1) correct education, (2) alluring places for practicing, and (3) cheerful company.

Correct education is attained when the daily bodily exercise has become an unconquerable necessity for the young human being. For this end an insight into the advantages gained is necessary, but particularly the getting accustomed to it. This training must, furthermore, lead to sufficient skill in sports, to express it in a more tangible manner. Quite a number of different sports must be learned during the time of youth, during which time the succession of the movements of the sports will be embodied in the motor-nerve-center, never to be lost again. One should not interfere too much in a young man's favorite sport, but all gymnastic pedagogics should achieve one thing, namely, to see that he learns a number of other sports besides the sport of his passion.

The group of the "has-beens" must disappear. We all know them—these men who once have been "masters" and who feast on pleasant memories of their former mastery. They talk much about their past sporting career, their past feats have the marvelous faculty of continuing their growth up to the present day, although these feats were forgotten and buried a long while ago. Likewise, the width of their waists is increasing and does not suggest anything about former world-records. They have succumbed to a psychological law: A man gives up the domain of his master-feats irrevocably if he, possessing his experience of mastery, recognizes that the latter is diminishing. He lacks the technical training for practicing other sports. It is a little difficult for him to begin so late to work his way into the new technique, and besides, his master's vanity is shocked at this.

A law not yet discovered, as little discovered as the psychology of increasing age generally, must yet make us acquainted with the rhythm of the change of taste. Only quite rigid people stick to one sport all their lives; the others get tired of one sport after a certain time. Perhaps it is the mysterious period of seven years that plays a part in our lives as the Bible already knew. Anyhow, the man who has mastered several kinds of sport makes a change; the other man, who is master of only one, makes an end.

Therefore, if sport is to be developed for all people and for their lifetime, education must lay the foundation for it. The skills that are acquired in youth will motivate sport participation in adult years.

THE *second condition* to be fulfilled relates to alluring places for practicing. It is the duty of the public authorities to build these, using the means offered by the community. In Germany we express this playfully by saying: "Sporting grounds and swimming pools should be paid for by those who stay outside."

But the building of playgrounds should not only be the duty, it should be the pride of the town. Thereby its level of culture will be shown. And besides, the more beautiful the establishment the cheaper it is to keep it up, because the users take good care of it. They do this for exactly the same reason that children scribble all over a boarding but will let a well-built wall remain untouched. We need the sporting place for everybody, the sporting place for the family, and the sight (which is rather rare today) of grandfather, father, mother, and child practicing at the same time, must become the rule.

Thus, the sporting places must become the places of refuge for the family, affording room both for exertion and for rest, for loud and merry play as well as for retirement, for contests under the eyes of the public and for the quiet practice of the elders, especially of the older women, without uninvited spectators looking on.

In bad weather, roofed training rooms as well as agreeable abiding-rooms must be available in order to accustom the sport-loving population to its sporting place and in order not to disappoint it.

I need not mention that the admission to all these establishments must be free, up to the finest well-heated, winter-swimming bath and steam bath, nor need I mention that the expenses incurred thereby in reality mean steps taken to save money. Health and public spirit will grow in these places. For every sporting ground and for every swimming pool a hospital will be emptied. With every sporting ground and every swimming pool the average girth of the chest will increase, together with elasticity, vital energy, and happiness.

THE *third problem* is to assemble sociable company. Sport is merely increased and intensified social life. Now part of the population will satisfy this need in club life. Club life regulates itself—the authorities might, at best, clear away some obstacles when occasion arises for, at bottom, every club serves the common welfare of the people, even if it is exclusive.

Furthermore, there will be a great number of people who fight shy of the ties of a club, who do not want to take part in the regular, organized matches, but who are content to find some cheerful company when practicing their bodily exercises. As I shall have occasion to point out during another lecture, it is for this reason that every sporting ground should have its sporting teacher or recreation leader who, in a sociable way, brings together those who belong to the species just described.

There should further exist a system of sporting courses or lectures in which those who are willing might enroll, in order to learn the technique under the guidance of a teacher, so that they may be able to continue

(*Continued on Page 63*)

Physical Education, Athletics, and Mental Hygiene

By

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CONTEMPORARY life is favorable to the production of mental disturbances. Manual labor under hygienic conditions which are often poor (vibrations, noises, dust, vapors, indoor air, etc.), the sedentary habits of the student, the intellectual worker, the office man, and the business man, put a strain upon mental equilibrium and physical resistance, and this strain is increased by the numerous infections often added to these bad labor conditions. We shall try to show that physical education may furnish the educator, the sociologist, and the psychiatrist important resources for maintaining and even restoring mental equilibrium.

By paying especial attention to matters concerning the body, by developing its motor possibilities (sources of new sensations and feelings), by creating a progressive neuro-muscular apprenticeship easy to treat and to control, physical education brings to the prophylaxis and therapeutics of psychoneuroses means which act, without doubt, through different channels, but whose results are beyond question.

Anatomy, normal physiology, pathology, and the study of growth furnish us numerous arguments which permit us to affirm that the muscle-nerve complex is closely associated with psychic phenomena. Anatomically and physiologically, nerve and muscle are indissociable. The muscle is constantly the seat of centrifugal nervous excitation belonging either to the life of correlation or to the vegetative life. Again, it is the point of departure of unconscious centrifugal stimulations which play an undisputed rôle in the psychic life of the individual.

THE study of the growth of the child proves that there is some kind of a parallelism between the perfecting of the voluntary motor system and the first psychic phenomena. The baby makes only inexact and uncoordinated movements except in certain automatic acts necessary to its nutrition. As the voluntary motor channels are being perfected there appear movements which are proportionately better coordinated.

As has been well expressed by my friend Jeudon, who works so successfully with backward children, it is toward the age of four that coordinated movements become precise and that the psychic functions appear and assert themselves. "The child makes independently the selections of useful movements and forgets the others, thus creating motor images, which, at first associated with the movement, afterwards acquire the possibility of freeing themselves from it and of acting independently, that is to say, of calling forth the movement of which they were only the representation." This important phase of the evolution of the motor function shows us in what way motor education can be used in psychic education and why one may say that *movement is the link between thought and action.* Such is the first manifestation of the muscular sense.

This production of voluntary movement by the association of motor images is closely paralleled in the field of biology by what Pavlov has demonstrated for the salivary and gastric secretions, phenomena which he has called conditioned reflexes (*reflexes conditionnels*). In the field of psychology one may compare the muscular synergies, which constitute a kind of *motor ego,* to the associations of ideas which constitutes the *psychic ego.* One readily perceives that the qualities acquired through motor excitation may be transferred in the case of a subnormal child to the mental field and that a method of re-education, taking advantage of these data, is an invaluable pedagogical method. Experience justifies this assumption. Most subnormal children, when given a rational physical education within their capabilities, are able later to take up an intellectual education which until then was beyond their grasp. This development is facilitated by making the lesson attractive through the use, among other things, of rhythm and music to which the subnormal show a ready response.

What is revealed to us by the pathology and the therapeutics of abnormal children is also valuable for normal children and will produce in their case still better results, as we shall see later. We have, therefore, just established the fact that there exists an intimate relationship between neuro-muscular development and certain fields of psychic life.

PATHOLOGY, which magnifies normal phenomena and permits one to discover at times the mechanism of normal physiology, will again show us the intimacy of these correlations. Neurologists have long since analyzed the functional and neuro-muscular manifestations of the psychoneuroses, one of which, neurasthenia, has derived its name from one of the outstanding symptoms of the malady. We know that neurasthenics

show a total lack of normal muscular energy, and, hence, an extreme tendency toward fatigue. The least effort causes a feeling of discomfort, an overwhelming impotence. Potential energy vanishes rapidly, and its time of recuperation is prolonged. According to Degerine: "The storage batteries charge slowly and discharge rapidly."

In the case of some of these patients the motor disturbance manifests itself not only through the untimely appearance of fatigue, but also at times through disturbances of equilibrium and of coordination of movements. In some cases the patient is unable to stand erect or to walk. In certain extreme cases the patient becomes rigid or paralyzed. Without apparent lesion, the malady appears to affect the coordination of functions of the mind and the muscles. Reflex movements of these patients are, most of the time, normal, but automatic and voluntary movements are disturbed.

One knows that automatic movements are made up of complex movements, in the execution of which the attention of the individual remains elsewhere. They are executed, so to speak, mechanically, in obedience, at least in appearance, to purely mechanical laws. Most of these movements have their origin in voluntary movements and have necessitated a mental effort in their acquisition. This effort is forgotten when the movement becomes perfected, coordinated, and no longer demands the use of reflection or conscious control. Muscular automatism is present at every moment of life. Training in athletics creates constantly new automatisms. Now, when fatigue manifests itself or when the attention is fixed anew on the execution of an automatic movement, one perceives that the latter becomes less well coordinated and that it loses its perfection. The phenomenon of consciousness inhibits and upsets the mechanism which hitherto was mechanical. Those who are lacking in decision, timid, and weak, are often awkward and clumsy because of the collapse of the automatic function.

Timidity of thought is often reflected in uncertainty of gesture. The neurasthenic appears as an individual who would bring to every movement, even a mechanical one, the same consciousness and the same attention as that which he would give to the apprenticeship of a new movement. He is forever an apprentice who works and strains, and this explains his asthenia. The voluntary movement, when it is not completely coordinated, is in fact a waste of psychic energy. Every new movement requires the effort of attention, the effort of analysis. At first foreign to us, it appears as an image whose contours and aspects we read with difficulty. We get only an indistinct outline of it. The final acquisition of this movement demands a complete series of functional and anatomic adjustments, including the fine balance between the organs of locomotion, sensation, coordination, and equilibration.

Through repeated excitation, there is established, little by little, an alliance between observation and muscular application. The better the muscles obey, the less does the image of the movement engross the mind. It disappears progressively in incorporating itself with the acquired movement. There comes a time when the gesture, so difficult to acquire, is definitely integrated. From this time our thought eliminates spontaneously all the stages which it has had to pass through. This liberation crowds out, in the functions of automatism, the movement which at first was voluntary. Automatism is enriched while psychic attention is liberated, free to apply itself to new objects. This phenomenon of the transfer of the new movement into the machinery of automatism is a psychomotor phenomenon which, it seems to me, should be very important in the education of children and in the re-education of defective mental and intellectual equilibrium.

The body of a person of sedentary or inactive habits is a heavy tow-line. The man whose muscles are inactive is a poor man, who leaves uncultivated a field of activity indispensable to his equilibrium. We often note among children, in all other respects normal, the birth of confidence in themselves at the time when they develop skill and become aware of the development of their strength and increased resistance to fatigue. The increased skill in movement seems to arouse admiration for the body, an assertion of the personality and a loss of the inferiority complex. Unruly actions of certain awkward persons, the awkwardness of the puny child, are often signs of intellectual fatigue and of the weakening of the will. Physical education may, therefore, by developing in the individual the neuromuscular function, react directly upon intellectual and mental equilibrium. We shall soon see, moreover, that we may also use other means to develop mental equilibrium.

THE psycho-physiological study of the emotions again permits us to demonstrate the interaction of the neuro-muscular function and psychism. Every violent emotion reacts, in fact, upon the voluntary or involuntary motor system. Watch the development of a fit of anger. The individual loses control of his movements and at the same time of his will. Mental disorder is accompanied by kinetic disorder. The attack sometimes ends in the child in convulsive phenomena, and in the adult very often in reprehensible and even criminal actions.

"The exasperated man who breaks a chair at once becomes calm, but at the expense of the piece of furniture which has been destroyed and of his dignity which has been lost. Let him have recourse to intensive exercise; the result will be the same but nothing will be destroyed. On the contrary, an invaluable force will be produced and stored up. Theodore Roosevelt knew this when, at the beginning of his political career, he had under his jurisdiction the police of the City of New York and had the courage to open free boxing rings in the quarters of ill fame. This action immediately brought about a considerable decrease in the number of bloody feuds for which this portion of the enormous city was daily the arena."

Such were the words of Pierre de Coubertin, Presi-

dent of the International Olympic Committee, during the Olympics at Antwerp in 1920. Thus did he emphasize the real importance of athletics as an emotional catharsis. Athletics now appear as a sedative, as a regulator. They sooth irritation, destroy ill temper, send in a wholesome direction the tumultuous forces by applying them to some purposeful end.

The analysis of fear would show us phenomena of the same kind. Here the voluntary movements and the will are arrested by inhibition. Internal energy disappears at the same time as the tonic and kinetic functions of the muscles collapse. Mental and muscular energy become stupefied. This sudden weakness which, as in the case of anger, affects all the faculties of the nervous system, psychism, voluntary neuro-muscular system, and vegetative system, attacks most frequently individuals who are fatigued or weak.

The emotional discharge of fear (we have witnessed it during the war) may end as does anger in mental derangement more or less prolonged. Here again athletics, especially those which demand an education for skill, a sustained effort, and cool-headedness, such as climbing the Alps in summer or winter, through their repercussion on boldness, on confidence, and resistance, through the superior power which they give to the skilful and strong individual, play an important rôle in transforming highly emotional natures. We have proof of this in classes of children and adolescents. Through games the unruly child becomes obedient, through gymnastics the indolent child becomes more active.

If the emotional phenomena reacts upon the muscular apparatus through a centrifugal channel, it is beyond doubt that the muscle in action is the point of departure of excitations which through a centripetal channel influence the cortical phenomena. Moreover, it is beyond question that the influence of exercise on the general phenomena of nutrition, of circulation, and of respiration, plays a rôle whose mechanism is still unknown to us, but which is undeniable in shaping character and determining mental equilibrium.

Finally, the quality of the exercises is itself not without considerable influence on mental education. The technical difficulty of an athletic act, the energy demanded by persistence in training or improvement of form, the collective discipline demanded by the rules of the game, are factors which develop individuality, increase will power, and call forth disinterestedness. On the mental side is added an interesting moral influence.

AFTER this rapid incursion into the domain of the relations between the neuro-muscular system and mental hygiene, we may wonder to what extent physical education and athletics may have a bearing on the prophylaxis and therapeutics of the neuroses.

Today we no longer discuss the benefits of muscular exercise on the functions of nutrition. We know the mechanism of this influence. The increase of oxygenation and therefore that of organic combustions, the better elimination of wastes, the increase of the functional stability of the great circulatory and respiratory systems, the equilibration of the excretory phenomena, the morphological and functional improvement of the locomotor apparatus are undeniable results of a sufficient amount of physical education pursued daily under proper control and guidance.

It certainly is not a matter of indifference to the mental functions to be supported by an organism whose nutritive balance is well equilibrated. We know now that a number of children show, during the school year, signs of intellectual fatigue, of mental retardation which is superadded to scholastic retardation, simply because they have physical deficiencies.

The endocrine insufficiencies (thyroidal, suprarenal), the hepatic deficiency, the many debilities (tracheobronchial adenopathy, intoxications), the different forms of infantilism, etc., are cited by specialists in pediatrics as frequent causes of mental weaknesses of certain children who display an irritability of character and psychic depression. Such a child, until then a happy student of normal character, suddenly becomes irritable and impatient, loses his rank as a good student and sees his growth retarded.

Let us look for the organic cause. Most frequently it will be easy to trace. We should not, at the first onset, blame it on laziness without good reason. The child is sick, the school régime is not at present wholesome for him. We think that physical education in school, begun at an early age (regarded as a vital element as indispensable as sleep and food), may avoid those numerous slight or grave disorders of the intellectual or mental balance of children during school life.

This year at Lyons we made the following experiment: in a school for girls we have chosen the most puny children and the most retarded from the scholastic point of view; those whom the teachers find undesirable because they constitute a burden heavy to drag along. These children, chosen in this way, constituted a special class which they themselves have christened "the health class." The regime was as follows: in this class we omitted two hours of intellectual work of the usual six; we used these two hours for physical education and games. We soon noticed, in less than three months, not only an improvement in the children's physique, a curve of normal growth, but also surprising intellectual progress; improvement of attention and memory; apparent and moreover surprising improvement (but to be explained by the neuro-muscular improvement) in writing and drawing; and finally improvement in character, a fact which greatly astonished the parents themselves.

This experiment suffices to demonstrate the educational value of exercise from three points of view: physical, mental, and intellectual. It would, moreover, be very strange if what one accomplishes with subnormal children could not be accomplished with normal ones.

Chronic cases of neurosis seem to benefit also from

(*Continued on Page 60*)

Physical Education and General Education

By

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I

ALMOST all writers agree that health should stand as the proper goal of physical education. When used in this way, health is not thought of in terms of quantity as though it were a stuff or a substance that could be weighed on scales or measured with a ruler. On the contrary, the word is used to describe a certain quality of the reactions which different individuals may make to their environments, to the food they eat, or to the people they meet. It is commonly agreed that certain kinds of reactions, certain modes of behavior, and certain attitudes shall be called healthy while other ways of functioning shall be called unhealthy. In other words, "healthy" is a term which is used with reference to the physiological functions of the organism in much the same way that "intelligent" is used with reference to the psychological functions of the organism. When we say that one act is more intelligent than another, we do not mean to say that the person who performed the one act had ten pounds of intelligence or three yards of it as opposed to the other person who must have had only one pound or one yard; and neither do we say that one person may have twelve inches of health as opposed to another who may have a full yard.

That manner of working or mode of functioning which may be called healthy rather than unhealthy has been applied, on the one hand, to the processes of digestion and muscular contraction and, on the other hand, to certain modes of behavior, especially those which have social significance or bear reference to social matters. The difference between digestion and the muscles, on the one hand, and modes of behavior, on the other, is simply this. The muscles are the instruments or machinery of action. They are the devices by means of which adjustment is made to some phase of the environment. The use of these muscles calls for the expenditure of energy and some of the glands of internal secretion, together with the digestive apparatus, furnish a proper agency for making this energy available.

It would be commonly agreed, perhaps, that physical education used to limit its program to the instruments of action or of behavior rather than to that part of the body, namely the brain, which determines the psychological character or quality of an action pattern. By implication at least, if not by intent, this sort of physical education proposed that health should be measured in terms of quantity rather than in terms of function. That individual who had the largest muscles, the strongest digestive system, and the biggest reservoir of reserve energy was said to be the most healthy individual.

This notion did not seem to be quite right, however, for many an individual who did not have large muscles or an inexhaustible supply of energy has often used his instruments for action in ways that gave his behavior a much higher rating in health quality than had the behavior of the muscular giant. In other words, it did not take long to see that there was something fundamentally wrong with any definition of health in terms of quantity and with all teaching methods that implied such a definition.

This must be true also of most definitions of health in terms of symmetry, of bodily form, or of grace in bodily movement. It is easy to see, of course, that a man can go through a series of exercises for the sake of developing muscle groups that are needed to perfect an ideal human stature; but this ideal implies that health is a quantity rather than a function. Those persons, for example, who look at the bodies of primitive people and who remark favorably of their symmetry and power, are likely to suppose that health is to be defined in terms of quantity, size, and proportion.

Some considerable foundation for this assertion is to be found in the emphasis which physical education has always placed upon anthropometric measurements. In trying to evaluate, for example, the total effects of physical education, it has been customary to take detailed and exhaustive measures of the various parts of the body with the hope that any change in these dimensions (in the right direction) would demonstrate the efficiency of the program. There has been established, therefore, in the manuals on physical education a tremendous array of norms of stature, weight, and the like, and it has thus become possible for a physical educator in one part of the country to compare the fruits of his work with the work of individuals in other parts of the country.

The objection which we wish to raise against this point of view appears in the words of Schwegler and Englehardt to the effect that "tests of physical efficiency based on bodily dimensions . . . . . are not satisfactory for the reason that such measurements do not necessarily have any direct relationship to func-

tional efficiency." It is clear that a man may be ever so powerful and yet use his muscles and his power in the unhealthiest manner possible. We cannot emphasize too strongly, therefore, the difference between the instruments or devices by means of which actions take place and the events or processes which give reactions their social quality and standing, either with respect to standards of skill or with respect to social problems.

The argument we are trying to formulate may be illustrated by an appeal to our current concepts of mental health. It used to be supposed that there must be two kinds of health, viz., the health of the body and the health of the mind. The health of the body was considered in terms of the amount, so to speak, of the Goddess Hygeia any man might possess. Likewise, a healthy mind was supposed to be some unique state or condition of that kind of substance which we commonly call "soul" substance. It is clear, however, that if souls become sick or unhealthy, this fact must remain forever unknown to us save in so far as an unhealthy "soul" leads to a type of action or a mode of adjustment to the environment which could be called "ill-adapted," "out of place," or "inappropriate."

In other words, then, we must come to a concept of mental ill health very similar to our concept of physical ill health. In both cases, muscles, together with such supporting structures as the glands and the digestive system, are used in the process of making certain reactions to the situations and events around us. Sometimes these reactions are appropriate, befitting the occasion, and commensurate with it. Whenever this is true, we should not say that the individual who reacted in this way has so many pounds or so many feet of health; on the contrary, the adjective "healthy" gets its significance only because it sums up in a brief way everything that could be implied by such words as "appropriate," "suitable," "adequate," and the like. On the contrary, if muscles, together with the glands and the digestive apparatus, were used in the creation of a response that was ill-adapted to the situation, incommensurate with it, and improper with respect to the standards society may have agreed upon, then such behavior might rightly be called unhealthy.

As a rule, inadequate, insufficient, or perverse reactions to food, to climate, and to the presence of bacterial organisms are described as physical ailments. Similar inadequacies with respect to tradition, knowledge, persons, and the like, are called mental ailments. In either case, however, the fundamental concepts involved are the same. Health and ill health are ways of describing certain characteristics or properties of the modes of operation, both physiological and psychological, of the organism. Health and ill health are not quantities, amounts, sizes, dimensions, or symmetries.

II

We turn aside now, for a moment, from the aims of physical education to the aims of general education. We meet forthwith a situation that has many parallels with that just described. General education, too, has had troubles with respect to a definition of its objectives in terms of quantity vs. mode of function. There are those who would say that, just as a quantity of health has stood as the objective of physical education so a quantity of knowledge should stand as the objective of general education. On the other hand, some men have insisted that the truly educated man is the person who knows how to use knowledge and who maintains a higher level of functioning in psychological ways than his fellows. This is to say that a person who has accumulated a large amount of information is not, on that account, an educated person.

This difference in aim is sometimes illustrated by drawing a contrast between the scholar, the researcher, and the explorer, on the one hand, and the rote learner, on the other. In the one case, education would have to be judged in terms of function or modes of working, whereas, in the other case, it would have to be judged in terms of quantity or size of the product. This seems to suggest that the analogy between general education and physical education seems to be fairly complete. It is possible to define both in terms of quantities, the one of muscle and the other of fact or information; but it is also possible to define both in terms of modes of operation, the one of physiological character and the other of psychological character. Our own argument is that mind in general education, like health in physical education, must be described in functional terms so that the truly educated person is that person for whom knowledge can be made effective in action.

Just as muscles may be used in all kinds of bodily performances, so knowledge may be used in all kinds of intellectual performance. But it is neither the sheer size of muscles nor the total amount of knowledge that gains the day. On the contrary, it is the way in which muscles and information are used that counts most.

For an illustration of this point, we may take some of our current thinking about the problems of ethics or of morals. A great many people possess a large amount of information about the good life, but it does not necessarily follow that this information has any pragmatic value in the sense that it has become intrinsic to behavior. Such people often know better but, as the saying goes, do worse. The great problem in character education, therefore, has not been to teach the main facts about good living but to so alter and modify the tissue of personality that knowledge of good life would be identical with a daily expression of good acting or behaving.

III

We are now prepared to see that both education and physical education have come to a real dilemma created by the fact that there is a serious discrepancy between their aims and the means which they choose to fulfill the aims. We may define the aim of physical education as the development of healthy modes of functioning; but the methods commonly used in physical education do not lead to the fulfillment of this aim at all, but rather to the aim embodied in the proposition that health is, after all, a matter of amount or size rather

than function. Likewise general education has as its aim healthy and adequate modes of thought and action rather than the mere accumulation of fact; but the methods which education uses favor the creation of reservoirs of fact rather than agility and creativeness in performances of the psychological kind.

We may say again, then, that both physical education and general education face a real dilemma, a dilemma which has been created by the discrepancy between aims and the methods used to achieve these aims. It will not be possible to relate the programs of education and physical education into a single, coherent whole until we have found a way to get rid of this dilemma. Neither will these two forms of education stand at their most efficient levels until the dilemma has been avoided.

The method commonly used in physical education to create better modes of body functioning has been to put individuals under a regime of formal exercise where a mechanical series of movements could be made, either spontaneously or in response to a pattern laid down in some artificial way. An almost inevitable effect of this sort of exercise is, of course, an increase in the size of the muscles, the toning up of all of the processes of metabolism, and probably a general increase in what we may call healthy modes of operation in the body. But the main emphasis must be upon size of muscles and symmetry of development rather than upon healthy functioning, for the healthy functioning is a functioning of the structures which supply energies to the muscles rather than in that kind of functioning which makes a response adequate or appropriate to a particular environmental situation.

As illustration in support of this argument, we may take the old-fashioned plan of grade school exercise whereby at ten o'clock or thereabouts, in the morning, the children were asked to stand in their places and to bend and flex the elbow, the knee, the upper part of the body, and so on. This is a type of exercise that has been extremely popular in gymnasiums and which has become embodied in such phrases as "the daily dozen" and in such pieces of apparatus as the rowing machine, pully weights, dumb-bells, wands, medicine balls, and the like. The children could be as witless as they pleased in doing these exercises with the result that improvement in health could come only to the instruments of action and not to the functions whereby actions get their psychological quality and standing.

This method of satisfying the aims and purposes of physical education has behind it a curious perversion of theological concepts for it has been argued that religious literature recommends the creation of a worthy temple in which the Holy Spirit may dwell. Theology has always held, of course, that man is inhabited by a soul or a spirit, and the first justification for a gymnasium and for the introduction of programs of physical education into educational institutions was based on the proposition that the earthly tenement of the soul should be a tenement of goodly quality. This theological argument has been supplemented by the doctrine that the "mind" should have a sufficient instrument whereby its wishes may be made known. A sound mind in a sound body, therefore, remains the slogan of those persons who believe that a sound mind can be created without any attention to the body save as the body becomes a more or less efficient servant of the mind. The outcome of these two arguments, the one from theology and the other from a philosophy of education, has already been indicated. If the soul is to have a satisfactory habitation or if the mind is to have a worthy instrument or servant, health must be measured in terms of power of muscles, soundness of digestion, and general symmetry of bodily development.

A strictly analogous situation is to be found in the programs of general education. We have tried to say that the aim of education should be the creation of an individual who was functionally rather than informationally competent. In order to meet this aim, education has based its methods of teaching almost, if not quite, exclusively upon the laws and principles of rote learning. Rote learning of the strictest and sternest sort is, of course, the only way in which one may acquire a large amount of fact or a broad range of information. But learning, in and of itself, does not contribute to that kind of versatility and flexibility of mental operation which eventuates in problem-solving, imagination, creative adaptability of facts to situations, control of the emotions for the sake of good personal balance, and in the development of all of those traits and attitudes commonly associated with the good life.

The reliance which education has placed upon the laws and principles of mechanical learning has behind it the support of experimental psychology, for it was in the field of mechanical learning that some of the first significant advances in the experimental study of what is commonly called the *mind* were made. It had been supposed by the scholastic philosophies that the rate of learning depended primarily upon the intent or upon the will of the learner, and that any failure to learn was due to sheer willfulness on the one hand, or to indolence on the other. Experimenters were not long in discovering, however, that a good many other conditions and circumstances must be satisfied if learning were to proceed most rapidly. Educational psychology hailed these discoveries as the solution of a very difficult problem, for a tremendous increase in enrollment in the grade schools, high schools, and universities made education take on the functions and properties of an industry. It looked as though teachers might find in the laws of learning that kind of a formula or mechanical device which would make quantity production in teaching possible.

It appears, then, that the parallels between physical education and general education are almost, if not quite, complete. Both types of education have come to a very satisfactory definition of aim or purpose, but both have remained obedient to a teaching method or procedure which results in exactly the kind of product each type of education wishes to avoid or certainly, by definition, to deny. This conclusion neither says nor means

(*Continued on Page 34*)

A Bibliography of Books

On Health, Physical Education, Athletics, Dancing

By

A. S. BARNES AND COMPANY

Educational Publishers Since 1838

THIS was prepared so that the student and teacher can have a simplified reference list of the latest books as well as of those books that have stood the test of time. The books are classified under subject headings and careful notation has been made regarding number of pages, illustrations, size and type of binding, publication date and price.

American Indian Dancing

The Rhythm of the Redman by Julia M. Buttree Illus. by E. T. Seton. Music. 280 Pp. $5.00 (1930)

American Indian Dance Steps by Bessie and May G. Evans. Illus. in Color by Poyege. Quarto Cloth. Music. 104 Pp. $5.00 (1931).

American Indian and Other Folk Dances by Mary S. Shafter. Quarto Cloth. Illus. Music. 77 Pp. $3.00 (1927)

Archery

Modern Archery by Arthur W. Lambert. 8vo. Cloth. Illus. 306 Pp. $3.00 (1929)

Archery Simplified by Phillip Rounsevelle. 8vo. Cloth. Illus. 120 Pp. $2.00 (1931).

Athletic Programs

An Athletic Program for Elementary Schools by Leonora Anderson. 8vo. Cloth. Illus. 134 Pp. $2.00 (1927).

An Athletic Program for High School and College Women by Marjorie Hillas and Marian Knighton. 8vo. Cloth. Illus. 90 Pp. $2.00 (1929).

Baseball

Baseball Notes for Coaches and Players by Elmer Berry. 8vo. Cloth. Illus. 85 Pp. $2.00 (1922).

Baseball for Girls and Women by Gladys Palmer. 12mo. Cloth. Illus. 140 Pp. $1.60 (1929).

Basket Ball

Basket Ball for Coaches and Players by George F. Veenker. 8vo. Cloth. Illus. 234 Pp. $3.00 (1929)

Basket Ball for Women by Alice W. Frymir, 12mo. Cloth. Illus. 260 Pp. $2.00 (1928).

Clog Dancing (See also *Tap Dancing*)

The Clog Dance Book by Helen Frost. Quarto Cloth. Illus. Music. 45 Pp. $2.40 (1921).

Clog and Character Dancing by Helen Frost. Quarto Cloth. Illus. Music. 65 Pp. $2.60. (1924)

Oriental and Character Dances by Helen Frost. Quarto Cloth. Illus. Music 118 Pp. $3.00. (1927)

Athletic Dances and Simple Clogs by Marjorie Hillas and Marian Knighton. Quarto Cloth. Illus. Music. 54 Pp. $2.00 (1926)

Taps, Clogs and Jigs by Mary Wood Hinman. Large Quarto Paper. Illus. Music. Pp. $2.00 (1929 Revised)

Corrective Physical Education

Corrective Physical Education for Groups by C. L. Lowman, Claire Colestock and Hazel Cooper. 8vo. Cloth. Illus. 521 Pp. $3.60 (1928)

Preventive and Corrective Physical Education by George T. Stafford. 8vo. Cloth. Illus. 328 Pp. $3.00 (1928).

Growing Straight The American Indian System of Physical Education by Maud S. Williams. 8vo. Cloth. Illus. 138 Pp. $2.00 (1930)

Corrective Exercises for Individual Physical Education by C. D. Giauque and J. P. Trepp. Paper (to fit Physical Education Handbook) Illus. $.75. (1932)

Dancing—General

The Art of Social Dancing by Lawrence Hostetler 12mo. Cloth. 140 Pp. $2.00 (1930).

Dance Technique and Rhythms by Elsa Pohl. Quarto Cloth. Music. Illus. 122 Pp. $3.00 (1928)

Field Hockey

Field Hockey for Coaches and Players by Hilda Burr. 12mo. Cloth. Illus. 194 Pp. $2.00 (1930)

Field Hockey Analyzed by Hazel Cubberley. 12 mo. Cloth. Illus. 188 Pp. $2.00 (1928).

Folk Costume

The Folk Costume Book by Frances Haire. Illus. in Color by Gertrude Moser. Large 8vo. Cloth. 150 Pp. $6.00 (1926)

Folk Dancing and Festivals

Folk Dances for Boys and Girls by Mary Effie Shambaugh. Quarto Cloth. Illus. Music. 143 Pp. $3.00 (1929).

The Folk Dance Book by C. Ward Crampton. Quarto Cloth. Music. 82 Pp. $2.40 (1909)

The Second Folk Dance Book by C. Ward Crampton. Quarto Cloth. Illus. Music. 72 Pp. $2.40 (1916)

The Gymnastic and Folk Dancing Books by Mary Wood Hinman. I **Solo Dances.** II **Couple Dances.** III **Ring Dances.** IV **Group Dances.** Each Large Quarto Paper. Illus. Music. $2.00 (Revised Editions).

Twenty Five Figure and Character Dances by Elizabeth T. Bell. Quarto Cloth. Illus. Music in Separate Vol. 180 Pp. $4.00 (1931)

Folk Festivals for Schools and Playgrounds by Mary Effie Shambaugh. Quarto Cloth. Illus. Music. 192 Pp. $3.00 (1932)

Football

Football Line Play by Bernard F. Oakes. 8vo. Cloth. Illus. 263 Pp. $4.00 (1932)

Practical Football and How to Teach It by Guy S. Lowman. 8vo. Cloth. Illus. 280 Pp. $3.00. (1927)

Football Conditioning by Holger Langmack. 8vo. Pigskin. Illus. 48 Pp. $1.50. (1926)

Games

Games, Contests and Relays by S. C. Staley. 8vo. Cloth. Illus. 354 Pp. $3.00 (1924)

Play Activities for Elementary Schools by Dorothy La Salle. 8vo. Cloth. Illus. 179 Pp. $2.00 (1926).

Greek Games

Greek Games An Organization for Festivals by Mary O'Donnell and Lelia M. Finan. Quarto Cloth. Illus. Music. 155 Pp. $4.00 (1932)

Gymnastics

Fundamental Danish Gymnastics for Women by Dorothy Sumption. 12mo. Cloth. Illus. 203 Pp. $2.00 (Revised 1929)

An Exhibition Handbook by Randall D. Warden. 8vo. Paper. Illus. 107 Pp. $1.00 (Revised 1929).

Calisthenics by S. C. Staley 8vo. Cloth. Illus. 388 Pp. $3.00 (1926).

Conditioning Gymnastics by S. C. Staley. 8vo. Paper. Illus. 50 Pp. $1.00 (1927).

(Continued on Next Page)

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Health

Health Through Projects by G. D. Brock. 8vo. Cloth. Illus. 280 Pp. $2.00 (1931).

Outlines in Health Education for Women by Gertrude Bilhuber and Idabelle Post. 8vo. Cloth. Illus. 201 Pp. $2.00 (1927)

Some Biting Remarks About You and the Foods You Eat by "Happy" Goldsmith. 8vo. Boards. Illus. in Color. 48 Pp. $.75 (1931).

History

A Brief History of Physical Education by Emmett A. Rice. 8vo. Cloth. Illus. 306 Pp. $2.00 (Revised 1929).

A History of Physical Education in Colleges for Women by Dorothy Ainsworth. 8vo. Cloth. Illus. 130 Pp. $2.00 (1930).

Ice Hockey

Ice Hockey by Alexander Sayles and Gerard Hallock III—12mo. Cloth. Illus. 132 Pp. $2.00 (1931)

Intramural Athletics and Play Days

Intramural Athletics by E. D. Mitchell. 8vo. Cloth. Illus. 191 Pp. $2.00 (1925)

Intramural Athletics and Play Days by E. M. Draper and G. M. Smith (Extra Curr. Lib.) Small 12mo. Limp Leather. Illus. 137 Pp. $1.00 (1931)

Play Days for Girls and Women by Margaret M. Duncan and Velda P. Cundiff. 8vo. Cloth. Illus. 87 Pp. $1.60 (1929)

Natural Dancing

Natural Rhythms and Dances by Gertrude K. Colby Quarto Cloth. Music. 106 Pp. $4.00 (1922)

Natural Dance Studies by Helen N. Smith. Quarto Cloth. Illus. Music. 62 Pp. $2.00 (1928)

Elements of the Free Dance by Elizabeth Selden. 12mo. Cloth. Illus. 163 Pp. $1.50 (1930)

The Dance in Education by Agnes and Lucille Marsh Quarto Cloth. Music. 244 Pp. $6.00 (1924)

Pageantry

The Pageants with a Purpose Series Edited by Dr. Linwood Taft. Sections (201-218) and others. Descriptions upon application to Publishers

The Technique of Pageantry by Dr. Linwood Taft. 8vo. Cloth. 168 Pp. $2.00 (1921)

The Festival Book by Jeannette C. Lincoln. Quarto Cloth. Illus. 74 Pp. $2.40 (1912)

Physical Education—Practice

Creative Activities in Physical Education by Olive K. Horrigan. 8vo. Cloth. Illus. Music. 147 Pp. $2.00 (1929).

Physical Education for Elementary Schools by N. P. Neilson and Winifred Van Hagen. 8vo. Cloth. Illus. Music. 380 Pp. $2.00 (1930)

The Practice of Organized Play by W. P. Bowen and E. D. Mitchell. 8vo. Cloth. Illus. 240 Pp. $2.00 (Revised 1927)

Physical Education—Theory

The Administration of Physical Education by Jay B. Nash. 8vo. Cloth. Illus. 505 Pp. $3.00 (1931).

The Theory of Organized Play by W. P. Bowen and E. D. Mitchell. 8vo. Cloth. 412 Pp. $2.40 (1923).

The Normal Course in Play by The Playground and Recreation Ass'n. 8vo. Cloth. 278 Pp. $2.00 (1925)

Interpretations of Physical Education Edited by Jay B. Nash Vol. I. **Mind-Body Relationships** (1931) II **Nature and Scope of Examinations** (1931). III **Character Education Through Physical Education.** (1932) Each 8vo. Cloth. 300 Pp. (approx.). $2.00

Educational Objectives of Physical Activity by Frederick Rand Rogers. 12mo. Cloth. 118 Pp. $1.00 (1929).

The Deeper Meaning of Physical Education by Eugene Matthias. 12mo. Cloth. 88 Pp. $1.00 (1929).

Physiology

Exercise and Its Physiology by Adrian G. Gould and Joseph A. Dye. 8vo. Cloth. Illus. (in Color). 433 Pp. $3.00 (1932)

Exercises in Physiology by Elmer Berry. 8vo. Stiff Paper. Illus. 140 Pp. $2.00 (1924)

Playgrounds and Recreation

The Organization and Administration of Playgrounds and Recreation by Jay B. Nash. 8vo. Cloth. Illus. 559 Pp. $4.00 (1927)

Play Areas Their Design and Equipment by The Playground and Recreation Ass'n. Quarto Cloth. Illus. 206 Pp. $3.00 (1928).

Recreative Athletics by The Playground and Recreation Ass'n. Pocket Size Paper. 202 Pp. $1.00 (Revised 1929)

Rhythm and the Dance

Expression-Gymnastics by Dr. Rudolf Bode. 8vo. Cloth. Illus. 161 Pp. $2.00 (1931)

Eurhythmics, Art and Education by E. Jaques-Dalcroze. 8vo. Cloth. Illus. 265 Pp. $4.00 (1930).

The Rhythms of Childhood by Caroline Crawford Quarto Cloth. Illus. Music. 84 Pp. $2.40 (1915)

Rhythms and Dances for Elementary Schools by Dorothy La Salle. Quarto Cloth. Music. 168 Pp. $3.00 (1926)

Swimming

Swimming Simplified by Lyba and Nita Sheffield. 8vo. Cloth. Illus. 297 Pp. $2.00 (Revised 1927)

The Diving and Swimming Book by George H. Corsan, Sr. 8vo. Cloth. Illus. 162 Pp. $3.00 (1924)

Tap Dancing

Tap Dances by Anne S. Duggan. Quarto Cloth. Illus. Music. 108 Pp. $2.00 (1932)

Tap, Caper and Clog by Helen Frost. Quarto Cloth. Illus. Music. 72 Pp. $2.00 (1931)

Tap Dancing by Marjorie Hillas. 8vo. Paper. References to Music. 29 Pp. $1.00 (1930).

Tennis

Tennis Organized for Group Instruction by Dorothy Randle and Marjorie Hillas. 12mo. Cloth. Illus. 165 Pp. $1.60 (1932)

Tennis for Women by Lou E. Anderson. 12mo. Cloth. Illus. 150 Pp. $1.60 (1926)

Tests and Measurements

Physical Capacity Tests by F. R. Rogers. 12mo. Cloth. Illus. 64 Pp. $.75 (1931)

Measuring Motor Ability by David K. Brace. 8vo. Cloth. Illus. 154 Pp. $2.00.

Tests and Measurements A Workbook in Health and Physical Education by Irene Palmer. 8vo. Cloth. Illus. 143 Pp. $2.00 (1932)

The Measurement of Athletic Power by Charles H. McCloy. Large 8vo. Cloth. Illus. 201 Pp. $3.00 (1932)

Track and Field

Track Athletics and Cross Country by Lloyd W. Olds 8vo. Cloth. Illus. 155 Pp. $2.00 (1930)

Track and Field Athletics by A. B. Wegener. 8vo. Cloth. Illus. 153 Pp. $2.00 (1924).

Track and Field for Women by Alice W. Frymir. 12mo. Cloth. Illus. 208 Pp. $2.00 (1930).

Tumbling and Pyramids

Tumbling, Pyramid Building and Stunts for Girls and Women by Bonnie and Donnie Cotteral. 12mo. Cloth. Illus. 143 Pp. $1.60 (1926)

Tumbling Illustrated by L. L. McClow. 8vo. Cloth. Illus. 212 Pp. $3.00 (1931).

Pyramids Illustrated by M. Macherey and J. Richards 8vo. Cloth. Illus. 190 Pp. $3.00 (1932)

Exercises on the Apparatus, Tumbling and Stunts by W. J. Wittich and H. C. Reuter. 8vo. Cloth. Illus. 110 Pp. $2.00 (1925)

Volley Ball

Volley Ball for Women by Katherine W. Montgomery 12mo. Cloth. Illus. 101 Pp. $1.60 (1928).

A Complete Catalogue fully describing all the books listed in this Bibliography will be sent upon request.

A. S. Barnes & Company
67 West 44th St., New York, N. Y.

that muscles should be increased in size or that facts should not be learned. It does say, however, that muscles, on the one hand, and facts, on the other are nothing more than the instruments, agents, or bits of material, so to speak, which are used in making adjustments to the environment. The quality of the adjustments is determined in a way yet to be described. The important point is that an exclusive devotion to those methods which increase the size of muscles, on the one hand, or lead to the accumulation of fact, on the other, actually raise obstacles in the way of the kind of functioning already described as the ideal toward which education strives. In order to understand this argument, it is first necessary to show what the real reason for the discrepancy between method and aim in education is.

IV

It goes almost without saying that the dilemma we have just described has been created by the perpetuation of a very ancient doctrine about the relationship between mind and body. We have grown up in the tradition that every man, contrary to appearance, is really a set of twins, the one being his physical body and the other being his spiritual soul. Physical education has, as a matter of history, concerned itself with the body and general education has concerned itself with the spirit or the mind. So long as physical education has been content with its part of each person, it has remained almost inevitable that it should tend to define health in terms of the size of muscles and the general symmetry of the body. It is natural also that its main measures should be anthropometric where growth in size, stature, weight, circumference of arm, leg, neck, wrist, and the like, were the most proper measures. It was also inevitable that formal gymnastics should present themselves as the best means of promoting the growth and symmetry of the body for it was fairly easy, as we have seen, to ask children to exercise themselves with respect to some particlar piece of apparatus and then measure the actual gain in body weight or muscle growth.

General education was not put in quite so limited a position, for it had two possibilities. On the one hand, following the philosophy of John Locke, education became a process of writing just as many things as one could possibly write upon a sheet of paper. On the other hand it had as a principal function the training or disciplining of the mind. But even here training or discipline was thought of not so much in terms of function as in terms of strengthening the mental sinews, after the analogy of strengthening the bodily sinews. In so far as the "mental sinews" become stronger or larger, education takes a quantity or a size as its aim. In so far as the "mental sinews" acquire new kinds of functional quality or lend themselves more readily to creative work, education takes function as its aim.

It is not necessary to go into the long and exceedingly complicated history which lies behind the division of a man into a mind and a body in order to find a way out of the difficulty created by this history. It is a plain fact of observation that men are not twins. On the contrary, they are single persons. Physical education forms one way of coming at a person and general education forms another way, but in either case, an adequate teaching method will make its impact upon a single identity and not upon disparate twins.

This leads us to ask what is it that physical education must do by way of teaching method to make its method commensurate with its aims? Likewise, what must general education do to make its methods commensurate with its aims?

As far as physical education is concerned, it is our proposal that plays and games offer a natural way of making method and aim commensurate with one another. A man cannot be witless while he plays a game. He may lie on the floor to do his daily dozen, let his imagination run to and fro as it will, and still increase the strength of some of the instruments which on another occasion, his imagination would have to use to make him an effective person in his daily life. But not so in a game! The men who meet one another on the football field, on the basketball floor, or in other types of competition find that their thinking, attention, imagination, memory, emotion, and mood must become intrinsic to their performance. This means, of course, that plays and games furnish exercise not only to muscles but that they furnish exercise to that part of the nervous system, namely, the cortex, by the aid of which responses get their psychological quality. Any kind of exercise that makes such factors as attention, memory, imagination, thought, and the like, intrinsic to performance means not only the exercise of the instruments of action but the exercise of those functions which make men more or less intelligent in their behavior. This is exercise of the mind not for the sake of an increase in sheer size but for the sake of making it more effective in action. Thus physical education makes its contribution to general education.

A similar program may be indicated for general education. It has been pointed out by a number of writers that one of the most effective kinds of knowing is that which is illustrated in scientific method. That is, scientific method means that knowledge must become intrinsic to action, that knowing is itself a kind of action. It would seem, then, that general education can become effective only in so far as it meets the same problem that has to be met by physical education where emphasis is laid upon an increase in the appropriateness of response rather than in an increase in the size of the instruments or devices which make response possible. A first requisite of all scholarship is, of course, information; but real scholarship rests upon the way in which facts are used. This means that general education, when it is at its best, trains the mind in the use of facts and thus its program becomes the same as that of physical education.

We have now come to the place where we can see that the programs of physical education and of general education are practically identical. As we hold fast to the definitions of aim or intent which both set for them-

(*Continued on Page 56*)

The Relation of Orthopaedic Surgery to Physical Education

By

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WE ARE indebted to ancient Greece for developing the Olympic games and providing the stimulus and opportunity that have brought us together in these conferences.

Our serious consideration of various subjects dealing with the international aspects of physical education will undoubtedly prepare us for a period of later relaxation in which we can also play together.

I should like to briefly call to your attention the fact that the present-day efforts of physical educators and orthopaedic surgeons lie in the common field of health education and preventive medicine and surgery.

We shall attempt to sketch the trends of these educational specialties as they have approached each other.

The studies of abnormal mental states led to the development of modern psychology and our better understanding of normal mental processes. In like manner, normal functions of the human body especially from a skeletal and neuro-muscular standpoint have been greatly clarified by studies of physical abnormalities. Growth divergencies, congenital defects and those disturbances of function incident to deformity, disease, or injury, have from study and observation directed our attention toward the so-called normal. One of the branches of the medical field which has had most to do with such studies is that of orthopaedic surgery.

The name of our specialty was applied to it as early as about 1741 by a French surgeon, Nicolas Andry, who wrote a book on the deformities of childhood and called it *Orthopaedia*. He chose this from two Greek words "Orthos" (straight) and "Paedion" (child) meaning, to straighten the child. He used it to cover his idea of that branch of surgery and medicine dealing with deformities and skeletal deviations from faulty growth, disease, or injury. His observations on postural faults in childhood, its recognition and treatment, went unheeded and unnoticed for a century or more. Orthopaedics, as it became known to the profession at large, meant the study and treatment of existing deformities.

Even late in the nineteenth century there were very few specialists in orthopaedic surgery. Medical practitioners usually failed to refer patients to them until after the patient had developed skeletal deformities, or showed defects which they thought the orthopaedic surgeon might correct by the use of some mechanical appliance.

It was not until much later that the advances in technical surgery were made in this specialty. The keenest and most thoughtful men in this branch, from studying and delving into problems looking for primary causes, gradually appreciated that most deformities were preventable if proper treatment was instituted early. They have been among the teachers in the next movement of educating the scientific world to the fact that the old maxim "an ounce of prevention is worth a pound of cure" is definitely applicable in this field as in others.

Present-day methods intelligently anticipate the fact that usually skeletal deformity other than growth faults arises from inefficient or improper treatment due to ignorance or faulty diagnosis. For instance, the appreciation and proper treatment of the potential deviations of childhood is the orthopaedic surgeon's contribution to the great field of preventive medicine and surgery.

IN ANOTHER field of endeavor let us note briefly the trend in physical education. It started along the line of recreational gymnastic and athletic activity. The emphasis was on the development of students physically, in order that they might have stronger bodies, better health, higher skills, and an outlet for pent-up emotional tensions. It also recognized the need of supplying an outlet for the combative instincts of primal man. In the place of clan or tribal loyalty, it substituted a tradition of loyalty to team and school, to town, state, and nation. This became an excellent preparation for meeting and combating the problems of competitive business and social existence.

Because of this policy, in those days the physically strong and normally healthy individuals received the greatest attention. In the earlier age groups, below the high school period, free plays and games were presumed to be sufficient for ordinary boys and girls.

Gradually a change took place; consideration for all students, weak as well as strong, began to be shown. Pioneers with a vision were not satisfied to see the vast number of physically inadequate going without attention. As a result of their observations and teaching the necessity for giving attention to causes of abnormal mental and physical states became more apparent. Trustees and administrators of schools and institutions began to feel more greatly their responsibility for the health, well-being, and social welfare of all students entrusted to them during the most important period of their growth. Regardless of the type of program instituted (play, gymnastics, athletics, dancing, etc.), the fact that large numbers of students were

physiologically inadequate or suffered from physical defects constantly arose for consideration. The great war emphasized the fact that despite years of gymnastic and athletic activity, too great a number of college men were not physically up to par for the strenuous demands of army service. Such a condition was a serious indictment and emphasized an existing weakness in our physical education program.

In consequence of this need and the constant urging of farsighted directors and school physicians, there has developed a better health education program. Gradually, so-called "corrective departments" were organized in the foremost colleges and universities, and also in some lower schools, to meet this need.

THUS we see these two streams of effort tending to converge. On the one side, that of medical practice, where the thinking was in terms of pathology. The medical profession was little concerned with the *apparently* healthy boys and girls who rarely came under a doctor's care except for acute illness or injury. On the other side, were the directors of physical education and coaches, basing their activities on the assumption that because a boy or girl was *apparently* well, he or she might be assigned a part in a variety of athletic and gymnastic activities without recognizing latent possibilities for harm. These directors and coaches received their education and training largely from teachers of physical education, who, because of their limitations in opportunities for clinical study, had very little knowledge of pathological processes. They were trained in handling the everyday run of students and their thinking was directed not at all, or but little, toward even the border line of pathological conditions.

Thus we see that there existed a broad avenue lying between these two streams of activity, physical education and medical practice. In this borderland existed the neglected mass of students not actually sick but whose physiological status was somewhat below par; whose physical and skeletal condition was such as to denote the probability of future trouble and failure under the exactions and stresses of life.

Pediatrists and orthopaedists were in the forefront in giving attention to this neglected field, making sure progress in studying the pre-school child and the younger students in their efforts to check or correct the advance of potentially injurious forces and conditions.

School boards and trustees finally began to listen and were forced to appreciate that their directors of physical education were right in desiring that the weak should share in the benefits of the taxpayers' money. They deserved the same consideration as the normally strong students for whose benefit vast sums had been spent for quarters, equipment, and teachers.

Examining physicians and physical directors began to appreciate that among these potential troublemakers in childhood, faulty posture, skeletal growth faults, and poor nutrition were outstanding. Likewise in handling similar age groups, the orthopaedic surgeons were calling attention to the fact that poor nutrition and faulty posture were important. They found from observation of more advanced stages that it was better to correct the early faults than to waste time and effort in attempting to change the uncorrectible later stages, when a fixed structural state had been reached.

These studies of the school child have brought the medical profession and physical education together and we must thank the children in whose interest we work for this introduction.

If we carry our metaphor a little further we may well liken the space between these streams to growth-covered banks. As formerly existing, this land which lay between physical education and medical practice was a fertile one for the noxious weeds of cultism and fads. The neglect of postural, skeletal, and nutritional conditions for so many years, by these professions, allowed all kinds of quacks, manipulators, mechanists, under-trained and untrained physical culturists, non-medical dietists and many others of the same ilk to flourish. Working together, the orthopaedic surgeon as engineer and the physical director as the horticulturist should cultivate this area. It should be a common field of effort where our interests, instead of bordering on each other, should overlap and fuse. The joint result should be a park-like cultivated field, the field of prevention and health education. As natural growth needs pruning, we must survey the material, the boys and girls, to find out what their needs are and so prune our physical education methods that more vital growth may be obtained.

After thirty years of continuous and intimate association with schools and colleges in the physical education field, I feel justified in commenting on our common problem.

There still exists a strong tendency in many quarters to trust to so-called "natural methods" in handling the physical education of students. The same criticism holds good of the medical profession, too many of whose members are still assuring the parents that postural faults of childhood will be "outgrown." Let me cite an illustration of the point: Knock-knees, bow-legs, and foot deviations are the commonest cases in which the advice is given, "Now mother, don't you worry about this, nature will take care of it in a few years, it will be all outgrown."

Granted, undoubtedly, that in a few cases this will take place, why has it not taken place in the adult school population in which one finds at least 70 per cent or more with faulty foot or leg alignment? Certainly if you are assisting nature in your physical education activities, one would expect to find in a university whose students have had from six to eight years of gymnastics, athletics, and recreation, a minimal number of such faults. Unfortunately this is not the case. The ratio is as high as it is in childhood. The condition has not been outgrown even with the assistance of the physical educator's efforts, and it is from this group that the later troubles arise, with which we, as orthopaedic surgeons, struggle.

At this Olympic time we are interested in the ath-

(*Continued on Page 59*)

The Contribution of Jiudo to Education

By

PROFESSOR JIGORO KANO

Honorary Professor of Higher Normal College and Member of House of Peers, Japan; President of Kodokan (an institution for the study and practice of Jiudo) (Original Founder of Jiudo and Kodokan); Honorary President, Japanese Amateur Athletic Association (founder and former president).

THE OBJECT of this lecture is to explain to you in a general way what *Jiudo* is. In our feudal times there were many military exercises, such as fencing, archery, the use of spears, etc. Among them there was one called *Jiujutsu* which was a composite exercise, consisting principally of the ways of fighting without weapons, using occasionally daggers, swords, and other weapons.

The kinds of attack were mostly throwing, hitting, choking, holding the opponents down, and bending or twisting the opponent's arms or legs in such a way as to cause pain or fracture. The use of swords and daggers was also taught. We had also multitudinous ways of defending ourselves against such attacks. Such exercise, in its primitive form, existed even in our mythological age. But systematic instruction, as an art, dates from about three hundred and fifty years ago.

In my young days I studied this art with three eminent masters of the time. The great benefit I derived from the study of it led me to make up my mind to go on with the subject more seriously, and in 1882 I started a school of my own and called it Kodokan. Kodokan literally means "a school for studying the way," the real meaning of the "way" being the concept of life. I named the subject I teach *Jiudo* instead of *Jiujutsu*.[1] In the first place I will explain to you the meaning of these words. *Jiu* means gentle or to give way, *jutsu,* an art or practice; and *do,* way or principle, so that *Jiujutsu* means an art or practice of gentleness or of first giving way in order to gain final victory; while *Jiudo* means the way or principle of the same.

Let me now explain what this gentleness or giving way really means. Suppose we assume we may estimate the strength of man in units of one. Let us say that the strength of a man standing in front of me is represented by ten units, whereas my strength being less than his, is represented by seven units. Then if he pushes me with all his force I shall certainly be pushed back or thrown down, even if I use all my strength against him. This would happen because I used all my strength against him, opposing strength with strength. But if, instead of opposing him, I were to give way to his strength by withdrawing my body just as much as he had pushed, remembering at the same time to keep my balance, then he would naturally lean forward and thus lose his balance.

In this new position, he may have become so weak (not in actual physical strength but because of his awkward position) as to have his strength represented for the moment by, say only three units, instead of his normal ten units. But meanwhile, I, by keeping my balance, retain my full strength, as originally represented by seven units. Here then, I am momentarily in an advantageous position, and I can defeat my opponent using only half of my strength, that is half of my seven units, or three and one-half, against his three. This leaves one-half of my strength available for any purpose. In case I had greater strength than my opponent I could of course push him back. But even in this case, that is, if I had wished to push him back and had the power to do so, I should first have given way, because by so doing I should have greatly economized my energy.

This is one simple instance of how an opponent may be beaten by giving way. Other instances may be given.

Suppose that my opponent tries to twist my body (as demonstrated) intending to cause me to fall down so. If I were to resist him I should surely be thrown down, because my strength to resist him is not sufficient to overcome his. But if, on the other hand, I give way to him, and while doing so I pull my opponent (as demonstrated) throwing my body voluntarily on the ground, I could throw him very easily.

I will give another example. Suppose that we are walking along a mountain road with a precipice on the side (as demonstrated) and that this man had suddenly sprung upon me and tried to push me down the precipice. In this case I could not help being pushed over the precipice if I attempted to resist him, while, on the contrary, if I give way to him at the same time, turning my body round (as demonstrated) and pulling my opponent towards the precipice, I can easily throw my opponent over the edge and at the same time deposit my body on the ground.

I CAN multiply these examples to any extent, but I think those which I have given will suffice to enable you to understand how I may beat an opponent by giving way, and as there are so many instances in Jiujutsu contest where this principle is applied the name Jiujutsu (that is gentle, or giving-way art) came to be the name of the whole art.

But, strictly speaking, real Jiujutsu is something

[1]Note by Chairman: Professor Kano states that the terms "Jiudo" and "Jiujutsu" are preferable to the more commonly used terms, "Judo" and "Jiu Jitsu."

more. The ways of gaining victory over an opponent by Jiujutsu are not confined to gaining victory first by giving way. We sometimes hit, kick, and choke in physical contest, but in contra-distinction to giving way, these are different forms of positive attack. Sometimes an opponent takes hold of one's wrist. How can one release himself without using his strength against his opponent's grip? The same thing can be said when somebody grips him from behind. If, thus, the principle of giving way cannot explain all the tricks in Jiujutsu contest, is there any principle which really covers the whole field? Yes, there is, and that is the principle of the maximum efficient use of mind and body, and Jiujutsu is nothing but an application of this all-pervading principle of attack and defense.

Can this principle be applied to other fields of human activity? Yes, this same principle can be applied to the improvement of the human body, making it strong, healthy, and useful, and constitutes physical education. It can also be applied to the improvement of intellectual and moral power, and constitutes mental and moral education. It can at the same time be applied to the improvement of diet, clothing, housing, way of social intercourse, and carrying on of business, and constitutes the study and training in the ways of living. I gave to this all-pervading principle the name of "Jiudo." So Jiudo, in its broad sense, is a study and a method of training in mind and body as well as in the regulation of life and affairs.

Jiudo, therefore, in one of its phases, can be studied and practiced with attack and defense for its main object. Before I started Kodokan, this attack and defense phase of Jiudo only was studied and practiced in Japan under the name of Jiujutsu, sometimes called *Taijutsu,* meaning the art of managing the body or *Yawara,* the soft management. But I came to think that the study of this all-pervading principle is more important than the mere practice of Jiujutsu, because the real understanding of this principle not only enables one to apply it to all phases of life, but is also of great service in the study of the art of Jiujutsu itself.

IT IS not only through the process I took that one can come to grasp this principle. One can arrive at the same conclusion by philosophical interpretation of the daily transactions of business, or through abstract philosophical reasoning. But when I started to teach I thought it advisable to follow the same course I took in the study of the subject, because by so doing I could make the body of my pupil healthy, strong, and useful. At the same time, I could assist him gradually to grasp this all-important principle. For this reason I began the instruction of Jiudo with training in *Randori* and *Kata.*

Randori, meaning free exercise, is practiced under conditions of actual contest. It includes throwing, choking, holding the opponent down, and bending or twisting his arms or legs. The two combatants may use whatever tricks they like provided they do not hurt each other and obey the rules of Jiudo concerning etiquette.

Kata, which literally means form, is a formal system of prearranged exercises, including hitting, cutting, kicking, thrusting, etc., according to rules under which each combatant knows beforehand exactly what his opponent is going to do. The training in hitting, kicking, cutting, and thrusting are taught in Kata and not in Randori, because if they were used in Randori cases of injury might frequently occur, while when taught in Kata no such injury is likely to happen because all the attacks and defenses are prearranged.

Randori may be practiced in various ways. If the object is simply the training in the methods of attack and defense, then the attention should be especially directed to the training in the most efficient ways of throwing, bending, or twisting, without special reference to developing the body or to mental and moral culture.

Randori can also be studied with physical education as its main object. From what I have already said, anything to be ideal must be performed on the principle of maximum efficiency. We will now see how the existing systems of physical education can stand this test. Taking athletics as a whole, I cannot help thinking that they are not the ideal form of physical education, because every movement is not chosen for all-round development of the body but for attaining some other definite object. And furthermore, as we generally require special equipment and sometimes quite a number of persons to participate in them, athletics are fitted as a training for select groups of persons and not as the means of improving the physical condition of a whole nation. This holds true with boxing, wrestling, and different kinds of military exercises practiced all over the world. Then people may ask, "are not gymnastics an ideal form of national physical training?"

To this I answer that they are an ideal form of physical education from their being contrived for all-round development of the body, and not necessarily requiring special equipment and participants. But gymnastics are lacking in very important things essential for the physical education of a whole nation. The defects are:

1. Different gymnastic movements have no meaning and naturally are devoid of interest.
2. No secondary benefit is derived from their training.
3. Attainment of skill cannot be sought for in gymnastics as in some of the other exercises.

FROM this brief survey over the whole field of physical education, I can say that no ideal form has yet been invented to fill the necessary conditions for it.

This ideal form can only be devised from a study based on maximum efficiency. In order to fulfill all those conditions or requirements, a system of all-round development of the body as a primary consideration must be devised as in the case of gymnastics. Next, the movements should have some meaning so that they could be engaged in with interest. Again, the activities should be such as require no large space, special dress,

or equipment. Furthermore, they must be such as could be done individually as well as in groups.

Those are the conditions or requirements for a satisfactory system of education for a whole nation. Any system that can meet successfully those requirements can, for the first time, be considered a program of physical education based on the principle of maximum efficiency.

I have been studying this subject for a long time and have succeeded in devising two forms which may be said to fulfill all those requirements.

One form is what I named "representative form." This is a way of representing ideas, emotions, and different motions of natural objects by the movements of limbs, body, and neck. Dancing is one of the instances of such, but originally dancing was not devised with physical education for its object, and is therefore not to be said to fulfill those requirements. But it is possible to devise special kinds of dancing made to suit persons of different sex and mental and physical conditions and made to express moral ideas and feeling, so that conjointly with the cultivation of the spiritual side of a nation it can also develop the body in a way suited to all.

This representative form is, I believe, in one way or other practiced in America and Europe, and you can imagine what I mean; therefore I shall not deal with it any further.

There is one other form which I named "attack and defense form." In this, I have combined different methods of attack and defense, in such a way that the result will conduce to the harmonious development of the whole body. Ordinary methods of attack and defense taught in Jiujutsu cannot be said to be ideal for the development of the body, therefore, I have especially combined them so that they fulfill the conditions necessary for the harmonious development of the body. This can be said to meet two purposes: (1) bodily development, and (2) training in the art of contest. As every nation is required to provide for national defense, so every individual must know how to defend himself. In this age of enlightenment, nobody would care to prepare either for national aggression or for doing violence to others. But defense in the cause of justice and humanity must never be neglected by a nation or by an individual.

This method of physical education in attack and defense form, I shall show you by actual practice. This is divided into two kinds of exercises: one is individual exercise and the other exercise with an opponent (as demonstrated).

From what I have explained and shown by practice, you have no doubt understood what I mean by physical education based on the principle of maximum efficiency. Although I strongly advocate that the physical education of a whole nation should be conducted on that principle, at the same time I do not mean to lay little emphasis on athletics and various kinds of martial exercise. Although they cannot be deemed appropriate as a physical education of a whole nation, yet as a culture of a group or groups of persons, they have their special value and I by no means wish to discourage them, especially Randori and Jiudo.

One great value of Randori lies in the abundance of movements fit for physical development. Another value is that every movement has some purpose and is executed with spirit, while in ordinary gymnastic exercises movements lack interest. The object of a systematic physical training in Jiudo is not only to develop the body but to enable a man or a woman to have a perfect control over mind and body and to make him or her ready to meet any emergency whether that be a pure accident or an attack by others.

Although exercise in Jiudo is generally conducted between two persons both in Kata and in Randori and in a room specially prepared for the purpose, yet that is not always necessary. It can be practiced by a group or by a single person, on the playground, or in an ordinary room. People imagine that falling in Randori is attended with pain and sometimes with danger. But a brief explanation of the way one is taught to fall will enable them to understand that there is no such pain or danger.

I SHALL now proceed to speak of the *intellectual* phase of Jiudo. Mental training in Jiudo can be done by Kata as well as by Randori, but more successfully by the latter. As Randori is a competition between two persons, using all the resources at their command and obeying the prescribed rules of Jiudo, both parties must always be wide awake, and be endeavoring to find out weak points of the opponent, ready to attack whenever opportunity allows. Such an attitude of mind in devising means of attack tends to make the pupil earnest and sincere, cautious and deliberative in all his dealings. At the same time one is trained for quick decision and prompt action, because in Randori unless one decides quickly and acts promptly he will always lose his opportunity either in attacking or in defending.

Again in Randori each contestant cannot tell what his opponent is going to do, so each must always be prepared to meet any sudden attack by the other. Habituated to this kind of mental attitude he develops a high degree of mental composure. Exercise of the power of attention and observation in the training hall naturally develops such power, which is so useful in daily life.

For devising means of beating an opponent, the exercise of the power of imagination, of reasoning, and of judgment is indispensable, and such power is naturally developed in Randori. Again, as the study of Randori is the study of the relation existing between two competing parties, hundreds of valuable lessons may be derived from this study but I will content myself for the present by giving a few more examples. In Randori we teach the pupil always to act on the fundamental principle of Jiudo, no matter how physically inferior his opponent may seem to him and even if he can by sheer strength easily overcome the other. If he acts against this principle the opponent will never

be convinced of his defeat, whatever brutal strength may have been used on him. It is hardly necessary to call your attention to the fact that the way to convince your opponent in an argument is not to push this or that advantage over him, be it from power, from knowledge, or from wealth, but to persuade him in accordance with inviolable rules of logic. This lesson that suasion, not coercion, is efficacious—which is so valuable in actual life—we may learn from Randori.

Again we teach the learner, when he has recourse to any trick in overcoming his opponent, to employ only as much of his force as is absolutely required for the purpose in question, cautioning him against either an over- or an under-exertion of force. There are not a few cases in which people fail in what they undertake simply because they go too far, not knowing where to stop, and vice versa.

To take still another instance, in Randori we teach the learner, when he faces an opponent who is madly excited, to score a victory over him, not by directly resisting him with might and main but by playing him till the very fury of the latter expends itself.

The usefulness of this attitude in everyday transactions with others is patent. As is well known, no amount of reasoning could avail us when we are confronted by a person who is so agitated as to seem to have lost his temper. All that we have to do in such a case is to wait until his passion wears itself out. All these teachings we learn from the practice of Randori. Their application to the conduct of daily affairs is a very interesting subject of study and is valuable as an intellectual training for young minds.

I will finish my talk about the intellectual phase of Jiudo by referring shortly to the rational means of increasing knowledge and intellectual power. If we closely observe the actual state of things in society we notice everywhere the way we are foolishly spending our energy in the acquisition of knowledge. All our surroundings are always giving us opportunities of gaining useful knowledge, but are we not neglecting the best use of such opportunities? Are we always making the best choice of books, magazines, and newspapers we read? Do we not often find out that the energy which might have been spent for acquiring useful knowledge is often used for amassing knowledge which is prejudicial not only to self but also to society?

Besides the acquisition of useful knowledge, we must endeavor to improve our intellectual powers, such as memory, attention, observation, judgment, reasoning, imagination, etc. But this we should not do in a haphazard manner but in accordance with psychological laws, so that the relation of those powers one with the other shall be well harmonized. It is only by faithfully following the principle of maximum efficiency—that is Jiudo—that we can achieve the object of rationally increasing our knowledge and intellectual power.

I SHALL now speak about the *moral* phase of Jiudo. It is not my intention to speak of the moral discipline given to students in the exercise room, such as the observance of the regular rules of etiquette, courage, and perseverance, kindness, and respect for others, impartiality, and fair play so much emphasized in athletic sports throughout the world. The training in Jiudo has a special moral import in Japan because Jiudo together with other martial exercises, was practiced by our Samurai, who had a high code of honor, the spirit of which has been bequeathed to us through the teaching of the art. In this connection I wish to explain to you how the principle of maximum efficiency helps us in promoting moral conduct. A man is sometimes very excitable and prone to anger for trivial reasons. But when one comes to consider that "to be excited" is an unnecessary expenditure of energy, giving benefit to nobody but often doing harm to himself and others, the student of Jiudo must refrain from such conduct.

A man is sometimes despondent from disappointment, is gloomy, and has no courage to work. Such a man Jiudo advises to try to find out what is the best recourse he can have under the then existing circumstances. Paradoxical as it may seem, such a man is, to my mind, in the same position with one who is at the zenith of success. In either case, there is only one course to follow, that is, what he deems the best at the time. Thus the teaching of Jiudo may be said to lead a man from the bottom of disappointment to a state of vigorous activity with a bright hope in future.

The same reasoning applies to those persons who are discontented. Discontented persons are often in a sulky state of mind and blame other people without attending to their own business. The teaching of Jiudo will make such persons understand that such conduct is against the principle of maximum efficiency, and will make them realize that by the faithful pursuance of that principle they will become more cheerful. Thus the teaching of Jiudo is, in a variety of ways, serviceable to the promotion of moral conduct.

FINALLY, I wish to add a few words to the *emotional* phase of Jiudo. We are all aware of the pleasurable sensation of muscles through exercise, and we also feel pleasure at the attainment of skill, in the use of our muscles, and also through the sense of superiority over others in contest. But besides these pleasures there is one derivable from assuming graceful attitudes and performing graceful movements and also in seeing such in others. The training in these together with the pleasure obtainable from watching various movements symbolical of different ideas constitute what we call the emotional or the aesthetic phase of Jiudo.

I believe you have already come to see what kind of thing Jiudo really is, in contra-distinction to Jiujutsu of feudal times.

IF I now state in a concise form what I have spoken, it would be summed up as follows:

Jiudo is a study and a training in mind and body as enrol., in order to learn the technique under the guidance of a teacher, so that they may be able to continue

(*Continued on Page 58*)

Courtesy *Art and Archaeology*

Brothers of the Wind.

The Athlete in Sculpture

By

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THE ASSEMBLING of this great and cosmopolitan collection of sculpture, architectural plans, paintings, prints, and posters relating to athletic action during this Tenth Modern Olympiad makes a talk on this subject inevitable, if only to direct the attention of art lovers to this phase of our modern life as a potential influence on the art of the future.

Forty years ago, Baron Pierre de Coubertin dreamed a modern Olympic festival; and in 1896 in a marble-lined stadium the games were celebrated at Athens after so many centuries of oblivion.

The last thirty years have witnessed a revival of interest in them and a widening of competition that has made the original games seem like a parochial picnic.

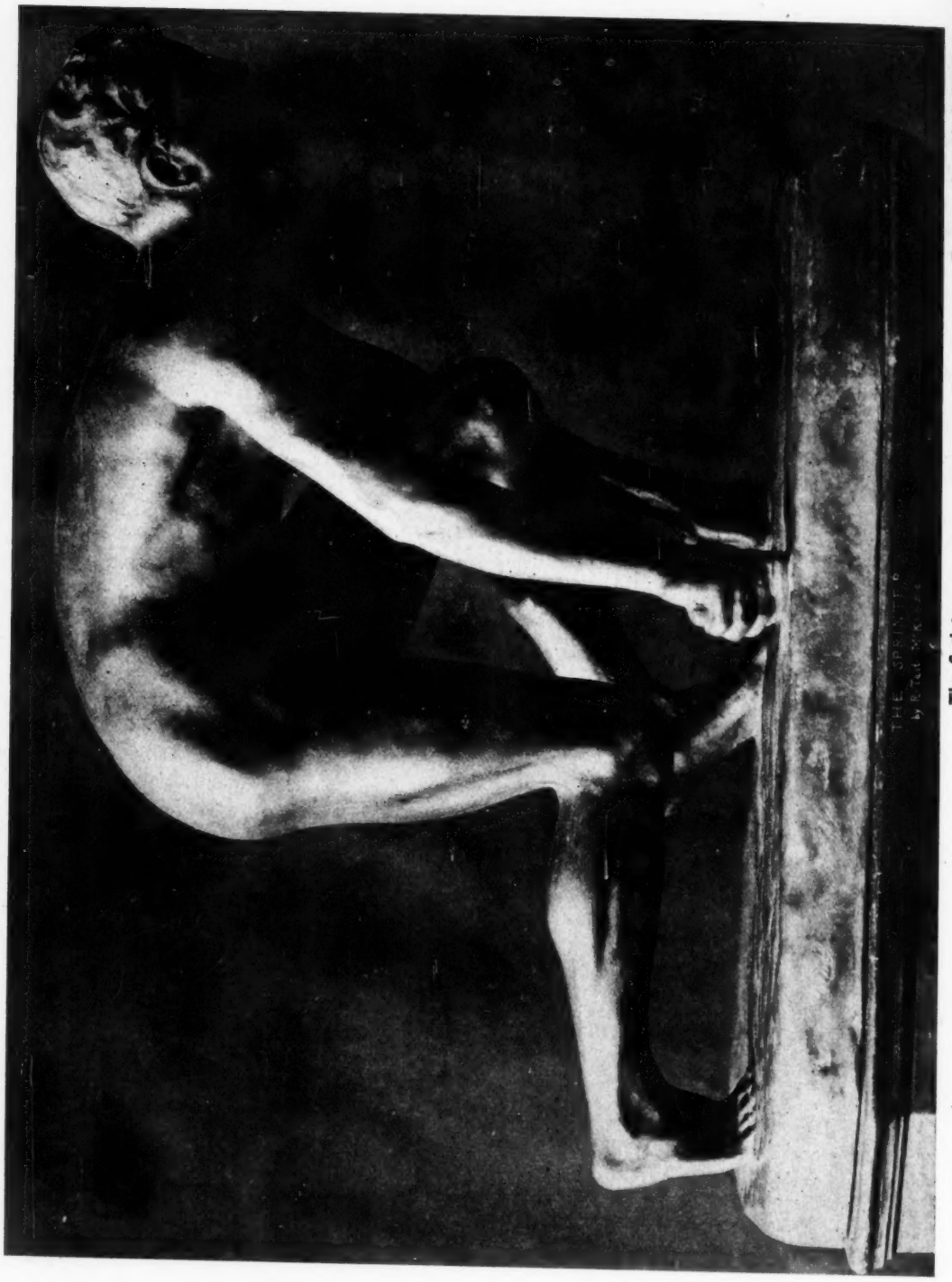
In the last games at Amsterdam in 1928 more than fifty nations were represented. Europe, Asia, Africa, America, North and South, with the Islands of the seas, sent their athletes, white, black, brown, and yellow, in this great international week of athletic competition.

And now in Los Angeles, before eighty to one hundred thousand spectators, comfortably seated in the stadium built for the purpose, the Tenth Modern Olympiad is being celebrated. What a contrast to the hillside on which the ardent Greek crowd stood to see their compatriots compete!

We are now in the era of stadium-building. In Europe, France and Germany are replacing the old walls and fortifications about their cities with playing fields and stadiums, and Italy has a grandiose plan for one in Rome to seat 130,000 people. It is to be decorated by ninety-two groups of statuary, each presented by a province and dedicated to Mussolini. The United States are studded by stadiums ranging in capacity from fifty to one hundred thousand people; and the Intercollegiate Track and Field Championships, and the two-day Relay Carnival at the University of Pennsylvania with its three thousand competitors, as well as other such contests, attract nation-wide attention.

This is but a tangible indication of the revolution that has taken place during one lifetime in our ideas and habits of life. Games and sports were struggling for a place in the sun at our schools and colleges fifty years ago. Some think that they now take it all and leave the scholastic side too much in the shade. It is only twenty years ago that the school yards and playgrounds were recognized as possible places for organized games and competition, and the growth of summer camps and outdoor life have given us back the cult of physical freedom and the athletic life. The nude or near-nude requires no cultivation in America. It is taken for granted at the beaches and camps from Maine to Florida, as a consultation of the weekly magazines will clearly reveal.

Why is it that this great movement has had so little expression from the painter and sculptor? Sculpture is the medium peculiarly suited to portray athletic action. Sculptors have always chosen the human body at rest and in action as the instrument for expressing their ideas, and nothing is more beautiful than the figure in the flower of its youth showing its strength, grace, and agility in the sports and games of the playing field, swimming pool, and gymnasium. The Egyptians of 3000 B.C. recorded the grips and holds of their wrestlers with a completeness that baffles us even yet; and a steady stream of great works with athletics as their motif marks the progress of Greek art from its portrayal of the athletic gods of Homer till it faded into that of Rome. The inspiration of this great movement in art was unquestionably the outdoor life led by the young men and girls of Attica and Sparta, for love of athletics distinguished the Greek from the barbarian. Sculptors had the nude body in action before



Courtesy *Art and Archaeology*

The Sprinter.

The Ice Bird. Courtesy *Art and Archaeology*

their eyes continually, but the prestige that attended success in the great festivals at Corinth, Delphi, Nemea, Athens, and Olympia was another great stimulus. There, statues of the heroes of the games studded the grounds, and their praises were sounded in verse and story.

These games attracted the fair, curly headed shepherds from the highlands of Arcadia and the darker skinned landsmen and seamen from the cities and from the islands and colonies of Greece. All competitors were of pure Greek blood. At their height the Olympic Games drew their competitors from the eastern end of the Mediterranean only, and not more than forty thousand spectators stood on the slopes of Mount Kronos to watch the contests.

We lean heavily on the fifth and fourth century Greek ideals for our art in spite of modernistic attempts to substitute the cult of Benin or Easter Island, and never more so than in our interpretation of the youthful figure in action or at rest. But our portrayal of the athletic youth is totally inadequate to express the significance of this great renaissance in which we are unconsciously living.

The modern athlete has already made his own contribution to the possibilities for sculpture that should be celebrated and not overlooked or forgotten. Since the beginning of time, athletes started a race from a standing position with but slight variations, as shown in the vase-paintings of 500 B.C. and the photographs in 1880; but in 1888 Charles H. Sherrill, a Yale student, stepped back of the starting line, stooped forward, and put his hands on it, planted his feet six inches apart and 30 inches behind the line, and made the unexpected discovery that the thrust from both feet in this position, apparently unfavorable, gave him a quicker start than the time-honored pose; and so was invented the "crouching start" now universally taken by athletes and giving a beautiful and graceful combination of lines and mass for the sculptor.

The Greeks had little thought that an athlete by the aid of a pole would ever clear an obstacle at the incredible height of fourteen feet, and yet the modern athlete has done this and is doing it, and has presented to the trained eye of the sculptor a series of graceful and beautiful poses of flight that are a delight to the eye.

The modern high-jumper has exercised an ingenuity of style in the "Reverse," the "Rollover," and the "Scissors," that give it a thrill the Greeks never had.

The modern athletic program has other events peculiar to itself. Heaving the 56-pound weight for height by a handle is an Irish contribution. Throwing the hammer, first practiced on the village greens of Scotland, and the putting of the "shoulder stone" is now standardized into the 16-pound shot put from a seven-foot circle. This shortening of the approach from one at first limited only by the breadth of Scotland has given rise to a series of evolutions and poses that are peculiarly sculptural

The Triumph of Wings.

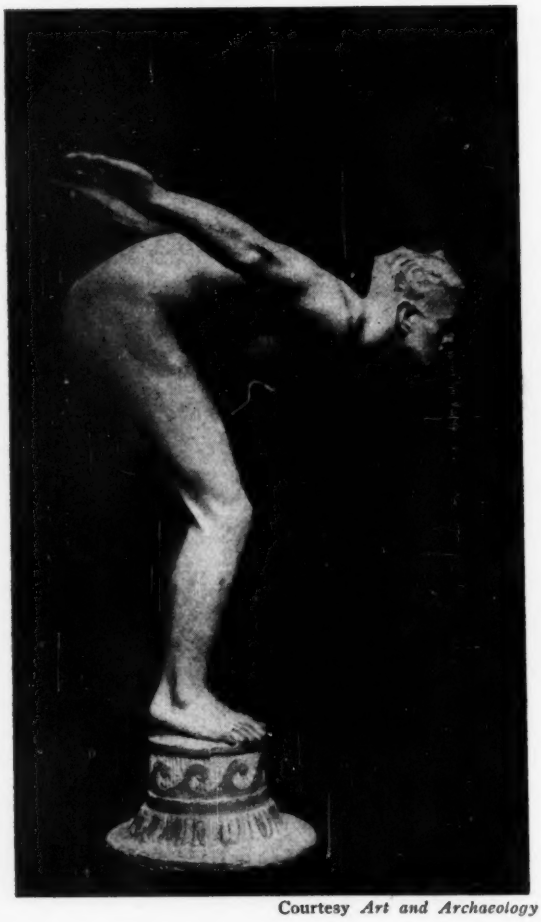
Courtesy *Art and Archaeology*

Courtesy *Art and Archaeology*
The Olympic Buckler. Exhibited at the Olympic Art Exhibit and given the Olympic Award.

Courtesy *Art and Archaeology*
The Joy of Effort.

The Javelin Cast.

The Plunger.



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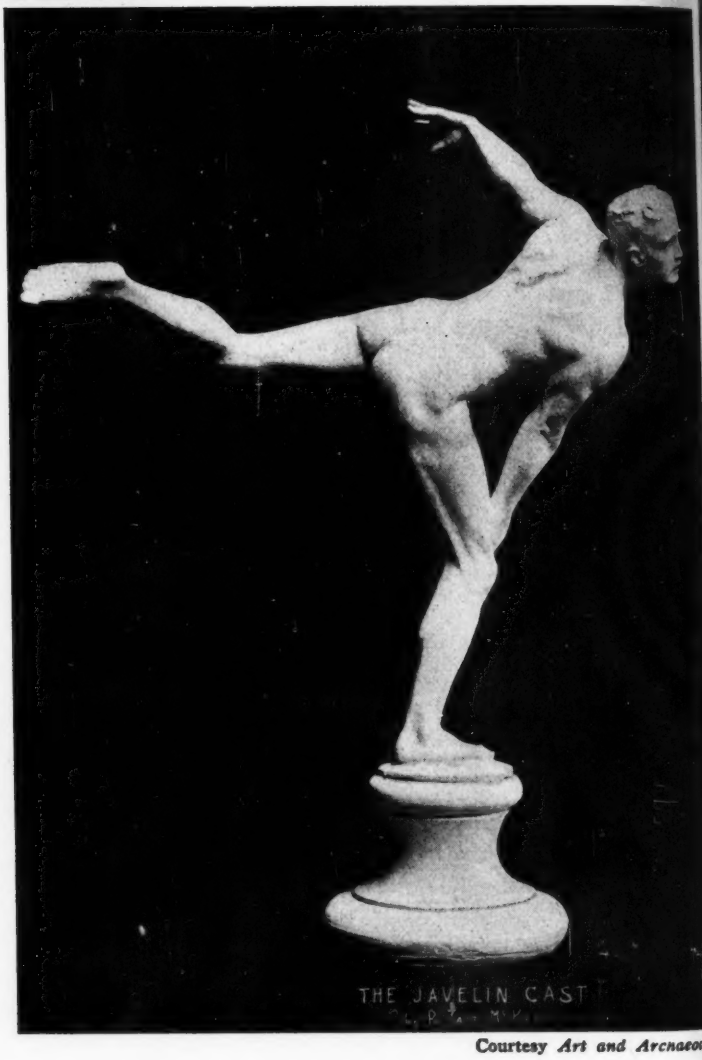
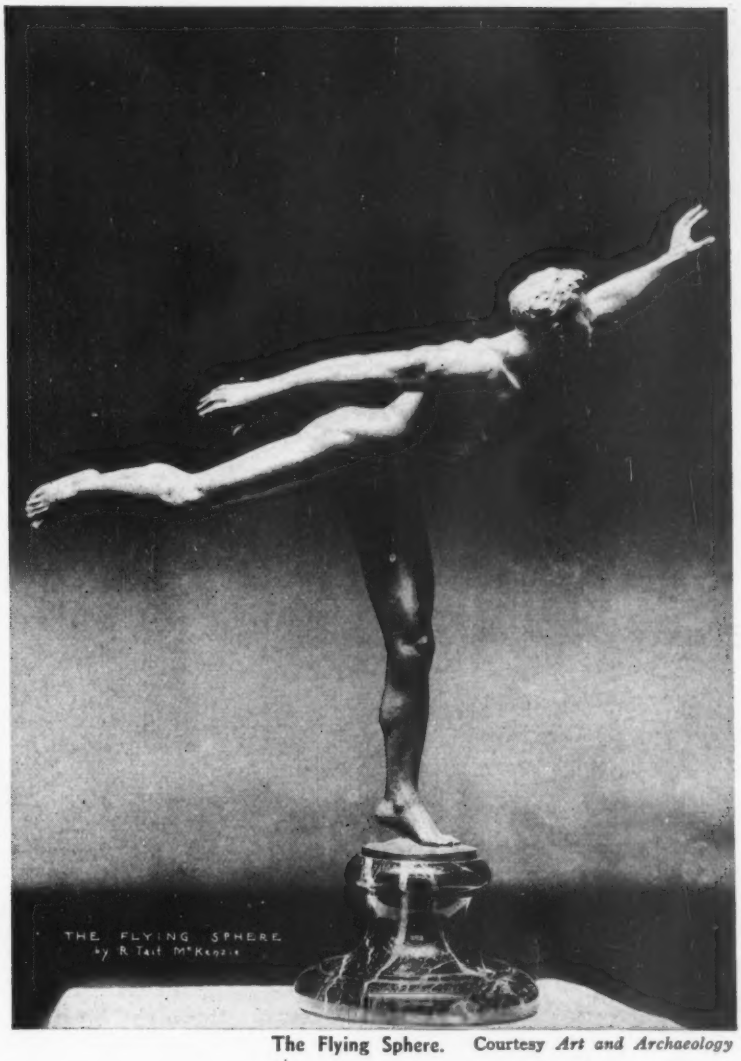


Courtesy *Art and Archaeology*

Courtesy *Art and Archaeology*

The Pole Vaulter.



The Flying Sphere. Courtesy *Art and Archaeology*

The Onslaught.

Reproduced by permission

from the first stance through the hop and reverse to the final bird-like pose held for an instant after the shot has left the hand.

The javelin-throw shows a pose almost identical after the missile has been hurled, although the modern athlete holds it by the shaft and not by the loop or amentum, as shown in the vase-paintings of Attica.

But it is in the discus that the greatest diversity of style appears.

When the Olympic Games were revived at Athens in 1896, the scholars and archaeologists tried to reconstruct the style in which the discus was thrown by the scattered references from Lucian, Stratius, Philostratus, and others, and from the statues, statuettes, and coins that have come down to us headed by Myron's Discobolos, with its disputed restorations of the head. They made sorry work of it with their Hellenic style, whose restrictions were soon cast aside, and the modern athlete has made use of his imagination to work out the way that seems to him most effective. The misunderstanding of the scholars seems to have been caused by the assumption that the discus was bowled underarm, a mistake founded on the misreading of Myron's statue, which does not by any means require this for its interpretation. It is very probable that it always was delivered with a circular sweep from a stand, or "scaled"; but it is also improbable that a preliminary turn was used as is the case at present to give additional speed to the final swing, thus increasing the distance by ten to twenty feet.

On analyzing the Discobolos of Myron we find two points hard to explain: (1) the turning backward of the head, and (2) the dragging of the left foot. The head leads in any forward movement and usually anticipates the direction of a throw. This is universal in sports and is why it is so difficult for the golfer to keep his eye on the ball till it is hit. He instinctively anticipates the direction he hopes the ball will take by his glance, and so tops his ball. The gunman who shoots from the hip looks at the object to be hit and not at his weapon. For that reason I like the "improper" restoration of the Discobolos with its head forward, seen in the British Museum copy, better than the more authentic Lanciolotti version in which he looks back at the discus. It is more in keeping with the spirit of the movement. The dragging of the left foot would indicate that it is being brought forward as if to counterbalance the forward swing of the right arm, and after the discus is delivered the right foot again would be advanced.

Courtesy *Art and Archaeology*

Shot Putter, "The Hop."

In the Hellenic style it was ordained that the right foot be kept advanced and the stance unchanged until the discus was bowled, a foolish restriction.

One summer I spent my daily hour on the beach experimenting with the discus. I was accompanied by an accomplished athlete and we tried many variations on the accepted style of throwing with and without the turn. The result was the Modern Discus Thrower.

I have chosen the same "moment" of the throw as that taken by Myron—the pause between the backward and forward swings. It shows certain radical differ-

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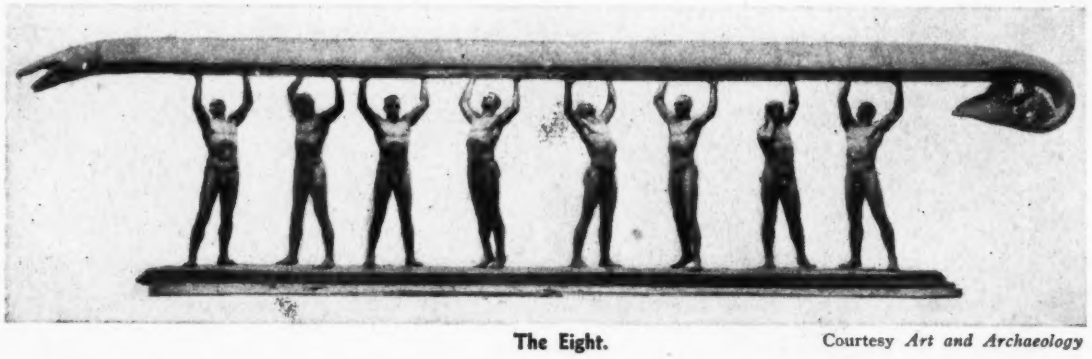

The Eight. Courtesy *Art and Archaeology*

Physical Education in Finland

By

LAURI PIHKALA

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I WILL first try to give an outline of the conditions under which physical education in Finland is working. The school system differs in many respects from that of this country. Listing from below upwards, we have first the lower degree of public school. This provides compulsory education for children starting about seven or eight years of age, and continuing for two years. Next we have the higher degree of public school, known as the municipal public school, which is four years long in cities but only two years in rural communities. The compulsory education is then ended at about thirteen or fourteen years of age. Then there is another line of schools, the object of which is to prepare for college or university education. Their curriculum differs from that of this country. It does not contain foreign language. These two systems run parallel for awhile until the municipal schools end the compulsory education at about twelve years of age. If a boy or girl is going to the college preparatory school he ends his education in municipal schools after two years of "higher degree" and then goes to the other school. This preparatory education school corresponds to American high school education.

They enter college about eighteen, nineteen, or twenty years of age. The number of school children in municipal public schools is 3,500,000. In the learned or college preparatory schools, there are about 30,000 and about 4,000 students are certified to enter college every year. One determining factor in physical education is the season of the year. Finland is farther north than most parts of Labrador in this country. The days are long in summer and short in winter. About this time of the year (mid-summer), the sun rises about half-past-two and sets about half-past-nine, or even later. We can read all night through in the summer. In the winter time the sun rises about half-past-nine in the middle of Finland. That means that we must use longer vacations in the summer from June 1 to the last of August, about three months. Christmas vacation is from December 18 to about January 14. That is a very bad drawback from the viewpoint of physical education. Of course the children who are active minded and interested in sports and exercise, make good use of the summer vacation, but the other children, who are rather passive, do not care for exercise, and spend their time reading books.

There has been much talk about shortening vacations, and particularly the placing of winter vacation at a more proper time. The semesters run from September 1 to December 15, and January 14 to May 30. A good part of each semester is unfit for outdoor exercise. Summer sport season is limited to practically September and May months. Other times we cannot do anything. Then in the fall there is a very ugly and unpleasant autumn time with rain and fog most of the days, almost every alternate day, and we cannot regulate a special hour for gymnastics or exercise as we may not have proper weather for that.

In the spring we have, in most parts of Finland, practically no snow. The period of winter sports is from the middle of January through February and March and at that time the days are very short. Skiing season comes in February or March and that is only a few hours in the afternoon. Then, in the late part of March and April, the snow melts away and the ground cannot be used for exercise. All this means that we have practically three or three and one-half months of the year when actual outdoor exercise can be employed in the school curriculum.

There has been some talk about shortening the Christmas vacation to two weeks only and then gathering one day from here and there and just stopping to have a "ski-running" vacation, which would be held according to weather conditions. When there is snow and the days are long enough in the latter part of the winter, then this vacation would be commenced and it would be spent for ski-running and hiking on skis. But I must confess this is only a dream. The trouble is that we have in Finland the antiquated idea of German education. I do not mean even the pre-war Germany, but the antiquated Germany of the seventeenth century, when training the mind was everything and when the main object of the physical training was just to counterbalance the effects of the mental training. The traditional system of physical education meant calisthenics. In fact, physical education in practice was nothing else but calisthenics. It was thought that three minutes was enough to give to a lesson.

THE training of municipal school teachers was also originally given with main regard to calisthenics. Ski-running and skating were considered a form of expression of evil-minded children. The municipal school teacher, in rural situations particularly, had to be an all-round teacher. He was expected to be interested in all things, to teach all things, and to be the leader in all organizations in his community. There was also the preacher of the parish, and perhaps a physician or

the sheriff. These were the leaders of all progress in the community, but public opinion made the greatest demands on the school teacher. He had to take part in all kinds of public activity. He had to lead the choir. He was to be the musical leader. It was almost essential that he be musically trained before he could enter the training school for teachers. He must be interested in agriculture as well as horticulture. He had to be a specialist in economic questions and cooperative movements, and probably a member of the board of trustees of the savings bank; and if there were special people in town, he had to house them. He was employed for every possible thing. If a publishing firm was getting out a new book, the advertising papers were sent to him and he had to collect from subscribers. He had to be agent for different newspapers. The political parties made frequent demands on him.

Persons who were interested in sports before going to the training schools are increasing in number. Younger men and women who are interested in physical education take up this vocation particularly in order to get an opportunity to practice their major interest. The other teachers think physical education is just a little too much aside from the regular training of the mind and so, in most cases, physical education has few enthusiastic supporters among teachers. The teachers in training schools are given forms of physical education which can be conducted automatically in the schools where they teach. They merely have to start the children participating in activities which appeal to the children themselves. Thus during the last decade a new period of activity has been inaugurated.

WE HAVE tried to formulate a program to be run automatically, with more stress and emphasis on play and athletics. In the rural schools, most of the children have to walk to and from school for an average of about one mile at least. In some cases it is two or three miles for children of ten or eleven years. They are now taught to make good use of this walking and ski-running to school. They are taught to find their individual gait in walking and to walk erect with good posture. They are taught brisk walking at their own individual speed. They are taught to make short fifty-yard sprints now and then, about one for every half mile. In the winter they are taught to make ski tracks across the hills up and down, and make the walking interesting and at the same time secure exercise. Moreover, in the immediate environment of the public school, we arrange opportunities for ski-running in the ski season. There are small ski jumps of ten or fifteen feet. As soon as one lesson is over the students go to the ski jump and then come back for another lesson.

I should mention that time devoted to physical education in the curriculum is only two hours a week in the municipal schools and three hours a week in the learned schools during the first four years, and only two hours a week in the later four years. The teachers are expected to get the children so enthusiastic in their activity that they will be able to find exercise outside the curriculum without additional help from other sources.

It has been our hope to increase the requirement to six hours a week but the school curriculum seems to be in a state of ossification at the present time. Many reforms have been started, but it is a hard fight between the staffs. There seems to be a constant feeling against physical education. It is very difficult to get any allies in this fight for the play life of the children.

IN THE rural schools, the summer program of physical education consists of two main features, the athletic badge tests and the Finnish baseball. Athletic badge tests are conducted by voluntary organizations. For boys they are run by athletic associations, and for girls by the Physical Education Association of Women in Finland. During seventeen years, 90,000 boys' athletic badges have been distributed, and during twenty years, 120,000 girls' athletic badges. The number is increasing very fast. This last half year, for boys' 12,000 of them were distributed. Because of the voluntary organization in the badge test, it is very difficult to organize and carry out the tests. We must use particular care that the badges are not given for nothing. The events in the test comprise the following: 50-meter sprint in 9 seconds, chinning the bar 4 times, throwing the baseball, and standing hop, step, and jump, which is the best exercise to develop spring.

The girls' tests comprise sprinting or running in slow time, throwing at the target for accuracy with the baseball and high jumping. These are very moderate requirements and in general the tests are not run along competitive lines, but more as outdoor gymnastics. The main point of view is that athletic sports in competitive spirit fail to foster the spirit of womanhood and destroy womanly characteristics.

Then there is the summer activity of Finnish baseball. It is a game of baseball that combines techniques of batting or hitting with the tactics of baseball. Instead of passing the ball horizontally as in your game, it is just tossed up vertically in Finland. The pitcher and catcher is the same man and the hitter has to hit the ball. It is much easier to hit the ball. In America you hit a baseball about one every minute. In Finland it is not just a duel between pitcher and batter. They hit a ball about every fifteen seconds. All the outfielders are kept at work all the time. The amount of exercise in the game compares with yours about as the half mile run with putting the shot. One reason is that the climate is much colder and we must have exercise that keeps us moving more than baseball.

IN A very few towns basketball and soccer football are played a little in the schools. Then there is the mass competition in public schools, a particular feature. It is planned that in the near future, ski-running competition will be enlarged from what we now have. Practically every school has its ski contest. The distance varies from about one and one-fourth to two miles.

A new system of interschool competition has been

(*Continued on Page 57*)

Some of the Physical Education Problems in Poland

By

DR. STANISLAW ROUPPERT

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THE MAJOR aspects of the physical education program in Poland are of comparatively recent date, notwithstanding the fact that even before the World War a marked interest was displayed in some fields of sport, especially the game of soccer. However, the substantial progress came after the War.

Due to the fact that a multitude of conditions influences the physical education in various countries, I will, in a few words, endeavor to discuss the correlation of only the more important factors this morning. The Sports Clubs interested in one or more branches of sport, as a social institution, must naturally be considered as factors of most importance. The clubs of a like character, in our experience, unite and form national federations of one or another kind of sports. The National Olympic Committee for Poland is composed of representatives of all federations united into a so-called Federal Sport Union.

This Federal Union of various branch organizations has as its chief objective the harmonizing and directing of subsidiaries. The membership of the Federal Sport Union is composed of the following branch federations: Gymnastic, Athletic, Handball, Soccer, Shooting, Rowing, Skiing, Skating, Swimming, Canoeing, Fencing, Boxing, Ice Hockey, Archery, Lawn Tennis, Cycling, and Motor Cycling.

The above-mentioned enumeration will at once give you an idea of the curriculum for instructors of physical education in Poland.

Individual national federations, engaged in specific branches of sport, are to some degree one-sided, due to special interest in their particular branch.

The financing of various federations in Poland is based in some instances on self-support where the revenue is derived from public matches and festivals. Other, equally useful branches, especially the "touring" sections of winter sports, and camping and hiking which are not applicable to gainful ends, must depend in a large measure on the second source of support, namely, the Government Treasury. We deem the latter sports equally or more valuable as agents of education in the field of physical education.

THE decisive rôle in these matters of sport is vested in the governmental Board of Physical Education. This Board is financially responsible for provision and help for the above sports and besides that it is obliged to provide playgrounds and gymnasium facilities in various localities. This places the Board in a position to shape the whole program of sport at will.

About five years ago the Board of Physical Education organized in various cities the so-called Physical Education Centers, to train, in short courses, a class of instructors. These courses are offering training and education to resident as well as outside pupils in manual training and theoretical subjects. The theoretical aspect is well supplemented by a variety of textbooks accessible to pupils during the school term. The various branches of sport are treated separately in order to facilitate the graduation of the instructors.

An average course lasts from three weeks to six months, special stress being laid on swimming, skating, skiing, and outdoor games. The above branches are being singled out in order to stimulate the general interest of the public with least possible expenditure from the government treasury. The City Training Centers are instructed to organize local branches all over the country in order to develop a dependable army of instructors for the rural districts.

The Training Centers have the gymnasium facilities and playgrounds which are subsequently turned over for the use of public and local clubs of restricted resources. These centers are financed usually by various communities and if that is impossible the burden falls on the government treasury. The centers have a well organized medical service in the form of first aid and competent medical advice for sportsmen, working under the control of the Medical Committee of the Scientific Council of Physical Education.

The Board of Physical Education finances the above mentioned branches of sport with the idea that by creating special interest in the ranks of instructors it will be able to popularize them among the youth of school age, and eventually among the whole populace.

This program is applied directly to the Central Institute of Physical Education in Warsaw, one of three established schools of physical education in Poland, and indirectly to two other schools affiliated with Krakow and Poznan universities.

During the past year the Board of Physical Education introduced special insignia for various sports with the idea of discouraging one-sided sport education and encouraging multiple participation in various branches by individual youth.

Badges are given to everyone who is able to accomplish the minimum requirements for his age and sex in six elimination groups. The table of requirements for various ages of both sexes was prepared by the Scientific Council of Physical Education, and this minimum must be accomplished by every pupil in the course of two years. A candidate is permitted to select a section in any of the six main branches, which branches are sub-divided into several individual competitions. I wish to give you a brief idea of the schedule mapped out for the six main groups.

The *first* group takes up the gymnastics, which must be performed according to established table with or without appliances, depending on local facilities. A satisfactory accomplishment of this competition or trial is an absolute requisite.

The *second* group includes athletic ski and water jumping; the *third group,* the runs up to eight hundred meters, short distance swimming (50 to 100 meters) and ice skate racing up to 500 meters; the *fourth* group, discus throwing, shot put, and javelin; the *fifth* group, marching, and athletic long-distance running, skiing, ice skating, and swimming; and the *sixth* and final group, various ranges of archery, and small-caliber shooting. Besides those enumerated there are in some groups still other competitions, the description of which would prove somewhat tiresome.

A successful competition in trials of the six groups entitles the contestant to special combined insignia known as "State Sport Badge" for the ensuing two years, after which time the wearer must compete again. The military men are permitted to wear this badge on their uniform, which will at once make clear the great importance attached to this sport decoration.

This badge or medal is subdivided into three classes: the first is a gold medal, the second a silver one, and the third is bronze. Each class is subdivided into four section classes to satisfy the various ages and repeated successful competitions. The badges are obtainable not only by the youth but also the adult of any age.

The badge should be of great promotional and educational value because it stimulates the bearer to keep in continuous fitness. Last year was the first time badges have been conferred, and of course we are able to judge only their promotional value so far.

There are over one hundred thousand awarded so far, which number is expected to grow speedily in the near future. We hope to observe the educational influence in years to come. This distinction represents a beneficial value for the older sportsman because it will stimulate him to keep in trim in order to be able to compete for a renewal every two years.

In the eliminative competition for the badges, the instructors are of prime importance because they exclusively pass upon the qualifications of the contestants.

AS I have mentioned previously the minimum requirements for the decoration in sport were established by the Scientific Council of Physical Education. This council is another factor that I wish to touch upon.

The council acts in an advisory capacity to the Government, consequently in some phases of its work, especially the educational one, it acts as an advisory body to the governmental Board of Physical Education. This body is composed of people engaged in one or another branch of physical education in the rôle of university professors, pedagogues and educators, as well as representatives of the Federal Sport Union of Poland.

The importance of this council can be readily appreciated from the fact that Marshal Pilsudski acts as its chairman at all plenar sessions and personally brings forth and discusses various questions of sport. At present the Scientific Council is subdivided into several committees, as, Medical, Committee on Standards, and the Women's Committee.

The Medical Committee has already prepared a table of minimum standards for the sport badge and besides this it concentrates its attention on the medical aspect of the problem including the direction of the previously mentioned sport centers.

The physiology of a sportsman is so far not investigated with any precision, and this committee takes it upon itself to conduct scientific researches of all phases of sport.

As a consequence of activities in this committee, the examination of international ski contestants in Zakopane (Tratra Mountains) in 1929 was undertaken, and the results and findings were recently published.

In the research work the Medical Committee encounters difficulties coming from the ranks of contestants themselves, who quite unwillingly undergo any experiments or examinations in the period just prior to competition. How important this phase of the problem is, I will attempt to illustrate by an incident connected with the current Olympic Games.

Pursuing the dictation of the Scientific Council, the Olympic Committee decided to conduct an examination of all our Olympic candidates from the medical standpoint. The findings of marked deviation from normal in a well-known contestant caused a considerable anxiety and a question arose whether he should be sent to the Olympic Games. He came here and it became evident beyond any doubt that his abnormality is for him an individual normal, since in spite of his apparent ill health he proved to be a total success. This instance shows the necessity of further collection of data from medical examination and this we propose to conduct through the Medical Committee of the Council. The results of examination of Olympic candidates will be published later.

One of the major factors in physical education is the problem of objective gauging of progress in physical education of children at various school ages, which most likely is desired in other countries as well. This problem was brought out and discussed at one of our plenar sessions of the Board by Marshal Pilsudski and in consequence a special committee of the Council was created to prepare a table for use in indicating the progress of physical education in boys and girls of

school age. Heretofore, we were forced to depend on the opinion of teachers, which under the best of conditions cannot be reliable since it is only a subjective one. After some extensive work the committee concluded that, inasmuch as accurate medical examinations are impossible in a mass of children, there being no facilities for such work, the committee should restrict its activities to simple examinations.

As working indicators, as a result of its work, the committee proposed the following three tests: (1) a 60-meter run; (2) a throw of a ball (similar to a baseball) of definite size and weight; and (3) a high jump.

The initial examination, conducted by the directors of physical education among about two thousand children of both sexes from the ages of ten to twenty years in high schools, where at last the work was found to be possible, gave a table of indicators graduated by age for strong, average, and feeble groups.

The approximate tables were sent out to high schools in various districts this year and experiments conducted in the period of May 1 to June 15 with about thirty thousand youths. The material so gathered will be checked up and after careful examination will be established as definite official tables. It is possible that this year's experiments may bring some minor changes in the tables, so these will be incorporated and a corrected list will be announced as official. The experiments created quite an interest among the physical education teachers, and this year's call brought forth a large unsolicited response from various schools.

Women's Sports are the object of the third committee. This section is comparatively young. The medical profession is often calling attention to some sports, taken up by the fair sex, pointing out the special life mission of the women, namely, maternity.

Motivated by these reasons the Scientific Council of Physical Education created a Committee of Women's Physical Education, which, among others, is composed of all women members of the council. It has as its object the solution of women's sport problems with this attainable condition that the sport should be adapted to a more marked degree in the direction of women's requirements of psychology and physiology. The Scientific Council cooperates with the governmental Board of Physical Education in order to harmonize the educational program of the three institutions preparing the instructors, that is, the two university courses and the Central Institute of Physical Culture at Warsaw.

The university studies offer a three-year course with opportunity to take up any additional subject the pupils may desire, which is of great importance in case some physical incapacity disqualifies the student permanently for further physical education work.

THE third institution is the Central Institution of Physical Education, erected lately and equipped with all modern apparatus, dormitories for men and women in separate buildings, gymnasium halls, large exercise hall (130 by 22 meters) for outdoor exercise during adverse weather, fields, playgrounds, and running tracks surrounding the buildings. The Institute offers a three-year course of university studies in two years by shortening the vacation period and instituting summer camp instruction.

The program of the three-year institutions is almost identical with this difference that the university students have an opportunity to take other subjects in various branches of science while the courses at the Central Institute are given exclusively for students of physical education.

The program of all the three schools gives a theoretical basis of anatomy, physiology, physics, chemistry, biology, hygiene, psychology, pedagogics, child psychology, and child physiology. It also gives anthropology and biometrics. As a special branch of the theoretical education, the theory of physical training, sports, and methods of gymnastics are given. The practical training consists of gymnastics, athletics, outdoor games, fencing, boxing, swimming, rowing, skating, skiing, hiking, and camping. Besides this, the students receive instructions in our many national dances with attention to pedagogic leading, and lastly, especially for women, systematic work is done in musical preparation of teaching character. Each school year the students receive a four-week program of practical instruction in skiing in the mountainous region during the winter months.

For practical programs, especially in summer camps, much stress is laid on hiking, water sports, and camping. First aid, massage, and medical gymnastics also receive much attention. The total number of hours—3,000 to 3,100 in two years—is divided almost equally between theory and practical training with slight favor perhaps for practical aspects.

Since the main effort in physical education for children is made in public schools, the systematic preparation of teachers is very important. Therefore, every student of the institute, in course of his training, must give instructions of ten to fifteen lessons to high school pupils in the presence of an instructor. In addition to this, every student must show a practical knowledge of psychology of children and a capacity for this kind of work by displaying a facility to conduct plays for children. As an after-effect of the World War we are obliged at present to pay special attention to hygiene, and in connection with it we base our physical training on Scandinavian gymnastics. In the system adopted in Poland a special stress is laid upon these fields of physical training which facilitate excursions to the country. This is why attention is given to such branches as camping, hiking, skiing, swimming, and canoeing. The Central Institute of Physical Education teaches also how to organize and conduct child games on their playgrounds and to organize festivals.

The candidates for admission to the Central Institute of Physical Education must present a Bachelor of Science degree and besides they must show predilection for sport organizations, scouting, etc. The eligible candidates are given a two-week trial course of physical

(*Continued on Page 59*)

The Development of Physical Education in France

By

DR. BELLIN du COTEAU

President, French National Federation of Medical Societies, Physical Education, and Sports

TAIT McKenzie, we think it was, who claimed that physical education in France had been hampered in its efforts by the "war of the systems," meaning thereby that several methods of gymnastic training—that of Amoros, the Swedish, the French, and the Natural systems, not to mention training through sports—were in conflict with each other under the high command of the heads of these various schools tenaciously holding to their own convictions. In the meantime the youth, patiently waiting, must be content with marking time, too elementary a procedure to have a real influence on the betterment of the human race.

Recently Macfadden declared that Europe was only a vast armed camp and that physical education, influenced by this militaristic orientation, had only one objective, avowed or concealed: to prepare soldiers for future wars.

These two American opinions are based, to a certain extent, on facts. The truth is that the development of physical education has been hampered by the lack of coordination of effort, by the lack of a general plan of action.

In fact, the opinion of Tait McKenzie reflects, above all, the situation such as it was presented (to indicate a definite date) at the time of the Congress of Physical Education held at the School of Medicine in Paris, about 1912. At this time there existed, evidently, a rivalry among the three systems of physical education: the French, which in reality is that of the Amoros, counting a large number of adherents and having at its disposal the efficient assistance of the government; the Swedish; and the system of Hebert. These three systems (methods) we shall study later.

At that period the Gymnastic Societies had at their head Mr. Charles Cazal. The French-Swedish physical education, receiving the influential support of Dr. Phillipe Tissler, claimed the authority of his physiological principles and opposed the principles of the French system. Naval Lieutenant Hebert, then, with his experience acquired as director of the marines at Lorient, endeavored, with the support of the press and in particularly the daily papers, and with the assistance of the Marquis de Polignac, to gain ascendancy for the natural method. Finally, athletic sports, for individuals and teams, began to attract the attention of the youth and brought together a number of adherents, without, however, resulting in a closely coordinated organization.

During the war all these methods were drawn upon in the training of the troops. The method of Hebert was used in the Fourth Army, the Gouroud Army, where Hebert was the director of physical education. An eclectic method with athletics prominently featured was used in the officers' schools at Saint Cyr, Saint Maixent, and Issoudun, the director of physical education being Dr. Bellin du Coteau. A military method, at present somewhat changed, was used at the École de Joinville, with Lieutenant Sallent as director-in-chief and Major Labrosse as assistant director.

AFTER the close of the Great War, a large number of military men were appointed to direct physical education. It is undeniable that the civilian was pushed aside, especially when it was a question of the placing of superior officers, who after the war had to go in this direction for the very good reason that it was necessary to find appointments for them some place. At present, however, an evolution is taking place. Furthermore, during a certain period when there were no openings for properly qualified civilians, many generals, colonels, and majors held positions for which they were in no way fitted.

One must recognize, on the other hand, that the military monitors, although not perfect, have nevertheless rendered services not to be forgotten at a time not far past when the Minister of Public Instruction thought no more of the health of those under his jurisdiction than of his first book in grammar.

Following this period of assignment of officers at the end of the war the physical education situation in France may be outlined as follows:

1. Physical Education in the Schools of the City of Paris. Although it is a question of local endeavor, yet this should be placed in the first rank for several reasons: This endeavor is the first of its kind, and was due to the efforts of Mr. Rey-Golliet, inspector general of physical education of the schools of the City of Paris. It was he who organized courses for the training of monitors who, after taking competitive examinations, are assigned to the schools of the City of Paris and of the Department of the Seine. This program, which includes an hour weekly of physical education, is beyond question insufficient. Yet it is apparently in this initial effort that one must look for the origin of future developments.

2. Physical Education in the Lycées and Colleges.

This is given by monitors who carry out the following program: the recruiting throughout France of monitor students who follow courses for a year in the Regional Institutes of Physical Education (at Rennes, Nancy, Marseilles, Montpellier, Lille, and elsewhere). One must note that the Regional Institute of Physical Education of Paris demands from students a most thorough course of training, more thorough because it offers an advanced course to which are admitted students having had already a year's study. These students are allowed to take competitive examinations, the winners of which receive scholarships covering all expenses. The studies of all monitor students are concluded with an examination which gives to those who are accepted the title of Diplomé Supérieur d'Education Physique. From these are chosen the monitors for the lycées and colleges.

The teaching staff in physical education must labor under difficult conditions because physical education for young people has only recently received governmental attention. There are two main difficulties: first, the present overloading of teaching programs prevents the allotment of sufficient time to physical education. Second, in regard to material equipment, there exist, on account of lack of foresight, neither buildings for teaching nor squares nor open spaces, even in the cities, where young people may exercise.

UNDER these conditions one may say that, for the present, physical education in France must make appeal largely to private initiative. There are two main types of organizations sponsoring the programs:

1. The Associations of Physical Education and of Military Preparation with which one may group the Gymnastic Societies. The purpose of the latter is the physical development of young people through means which are always drawn from the Amorosian method.

2. The Athletic Clubs, which have a large membership and tend toward a rational program of athletics, thanks to the presence in these clubs of manager monitors. Although we are not unaware of the criticisms which have been made against athletics yet it remains none the less true that they constitute the chief medium through which French youth may obtain the benefits of the open air and of exercise.

It is well to emphasize the fact that these enterprises can exist only with the help of governmental subsidies. These subsidies are given to associations designated as affiliated (*agrégés*). For budgetary reasons this recognition is accorded by the Minister of War, a fact which may explain Macfadden's criticism. But this is an illusion as the following example will show: The Roland Garros Stadium, where the contest for the Davis Cup is held, has been made to appear (for reasons mentioned above) as belonging to an affiliated association. One may therefore read above the entrance and even above the name "Stade Roland Garros," the designation "Société d'Education Physique et de Préparation Militaire." Our French administration is such that this procedure is the only one open to the great athletic clubs of France, such as the Stade Francais, the Racing Club

(*Continued on Page 57*)

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Youth and Leisure

(*Continued from Page 19*)

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Before I answer, let us look around. From China to Peru there is sore travail. There is the wrangling over war debts and reparations, there is the inevitable fact that not all who conquer are those who gain. There is unemployment in Britain, America, Germany, and virtually every other country. China is at war with Japan. There is over-production of foodstuffs and not sufficient money with which to buy them. Nature has never been so bounteous, and yet man fails to find markets, fails to bring about adequate distribution. The wheat that would feed millions is being burned, crops are being ploughed into the ground from whence they sprang, and wonderful machines, invented by man himself, are daily making workless thousands who ache for work.

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Footnotes on the Olympics

(*Continued from Page 13*)

through the finish line before Metcalfe's.

This electrical timing device, incidentally, constituted a remarkable test of the accuracy of manual timers. On one of the heats in the 100-meter, the manual timers agreed uniformly on stop-watch readings of 10-3/5 seconds. Subsequent examination of the motion picture film showed that the race was actually run in 10-58/100 seconds.

While the gentlemen of the press had some fun with the officiating, and may have given the ordinary newspaper reader the impression that while the athletes were magnificent at the Games, the officiating constituted a comedy of errors, I believe that with the two exceptions which I have mentioned above, the event was extraordinarily well handled by the officials. In this the motion camera confirms that verdict, insofar as the timing and judging of the finish was concerned at least; and race after race was so closely decided by fractions of inches, that any experienced man could only marvel that the judges made the difficult decisions which they were called upon to make as accurately as they did. (*To be continued in the December issue.*)

Athlete in Sculpture

(*Continued from page 46*)

ences. The body is more crouched, so that the elbow of the left arm is opposite the right knee, whereas in Myron's it is the wrist. The left foot is pushing instead of dragging, and the head is turned sharply forward and to the left, looking in the direction of the throw. The arm is across the back and the hand in pronation, a position of the hand shown in several Greek drawings and taken by about fifty per cent of the modern experts in the feat. This spiral movement of the body shows better from the back view.*

The rotary or spinning action of the throw has its speed increased by the complete turn of the body before the final throw is made. The evolution of the discus throw is still far from complete; and at any time an ingenious modern athlete may discover some new refinement of movement or radical change in mechanical action under the stress of international competition that will revolutionize the technique.

A number of athletes keep the body almost upright and rely on the speed of the turn and the sudden straightening of the knees to get distance and elevation, giving a fine sculptural composition quite different from the traditional pose. The circular movement is too valuable to be discarded, and we owe that to the

*See illustration of Modern Discus Thrower on Page 13.

blacksmith's hammer thrown on the village green.

Perhaps the most interesting race in the modern program is one the Greeks never saw—the flight of the hurdlers. The impression of this race is admirably described in Wharton Stork's sonnet on the medallion, The Joy of Effort, the original of which is placed in the wall of the Stadium at Stockholm to commemorate the Olympic Games of 1912.

THE JOY OF EFFORT*

By CHARLES WHARTON STORK

Eager as fire, impetuous as the wind,
They spurn the ground and lightly clear the bar,
Three racers? Nay, three strong wills unconfined,
Three glad, contending swiftnesses they are:
Three dolphins that with simultaneous leap
Breast the high breaker of a tropic surge,
As flashing silvery from the purple deep
And scattering foam, their curving backs emerge;
Three agile swallows, skimming near the ground
That give their bodies to the buoyant air;
Three roebucks fleet that through the forest bound.
Yet how can even such with men compare?
Not with mere pride of strength are these alive;
The noblest joy of being is to strive.

Swimming and diving were part of the daily life of the Greeks; but we have no records of competition in them as part of their athletic program. In the modern Olympic Games, water sports have a section to themselves and bring competitors from all over the world. The flight of the diver, and the flat plunge of the racer each lends itself to the sculptor's interest.

The rhythmic sweep of the oars in a college eight was a sight the men of Attica never saw, although the Athenians had their own regattas and torch or relay races on foot and on horseback.

The winter sports that formed an Olympic festival of its own at Lake Placid this year introduced a whole new series of actions that were withheld from the games of the ancients by climatic conditions: the flight of the ski-jumper, the curving swing of the figure-skater with his birdlike swoop and leap, are charged with grace and beauty; and the flashing, kaleidoscopic dash of the hockey-players on the ice give a new zest to the lover and interpreter of skill and speed.

It would take one too far afield to cover the age-honored sports of boxing, wrestling, and fencing, the more modern golf and tennis, and such purely modern team-games as football, baseball, and basketball, the last a game deliberately invented in 1895 to fill a definite want on the program of sports and now played all over the civilized world. All are full of inspiration for the sculptor.

Wherever untrammeled youth is found, in camp, field, beach, or gymnasium; on land or in the river, lake, sea, or swimming pool, there should be the sculptor with his appraising eye, his cunning hand, and his will to record his impressions, if an adequate interpretation is to be made of this great renaissance of athletic competition in which we are living for the most part unconsciously and too often with an unseeing eye.

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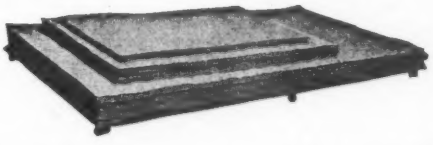

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General Education

(*Continued from Page 34*)

selves and then find means and method for the attainment of these ends, we cannot rest satisfied with the kind of formal exercise which may change the power or energy of response and neither can we rest satisfied with a method of learning which shall lead to the accumulation of more facts. Some mode of exercise or training must be sought which shall bring about an actual change in the quality of behavior. That is, a mode of exercise must be developed which shall lead to flexibility and creativeness on the part of the cortex.

It is commonly agreed that the quality, appropriateness, adaptiveness, or suitability of behavior, both manual and verbal, depend upon the nature of the events that can take place in the brain. The nature of these events depends, in turn, upon the sort of training through which the brain has been put. The fact that physical education is turning more and more to games is a recognition of this fact for games make the activities of the brain intrinsic to performance whereas formal exercise can be witless, as we have said. In other words, games exercise not only the muscles which are the instruments used in behavior but the brain as well which is the alleged seat of alertness, sagacity, imagination, insight, and creativeness. In the same way, facts or information are the materials used in a setting which may be more or less sagacious, imaginative, or creative. An education which emphasizes the getting of facts alone thus makes itself parallel with a physical education that strives for muscles. On the other hand, an education that strives for flexibility and creativeness in problem-solving and in other psychological traits finds an immediate ally in a physical education which rests upon plays and games.

V

There are a good many reasons to believe that extreme emphasis upon routine-like movements in physical education or upon the learning of many facts in general education raises a genuine obstacle in the way of flexibility, adaptability, and variability of a functional type. On the side of physical education, for example, we find the following situation. Those individuals who have gained the most of their physical strength and endurance under fixed types of movement develop extreme power in these movements but at the same time come to a condition which may be called nerve-bound, in close analogy to the condition known as muscle-bound. That is, the repetition of any series of movements means the development of a habit because the excitations that flow over any single nerve pathway seem to cut that pathway deeper and deeper. This is a theory that lies behind all trial and error learning and behind that law of learning which is sometimes called the law of use or the law of exercise. It is curious to note that the law of exercise has been steadfastly used in favor of that fixity of movement which we call a habit or a skill, but has never been urged in favor of the same kind of fixity of movement which would come out of monotonous types of labor. In any case, individuals who have been trained to make a limited number of exceedingly powerful movements seem to lack that kind of versatility and adaptiveness which we associate with great athletes.

The same set of observations hold true of those processes of general education which limit themselves to rote learning. There seem to be two standards of scholarship in current use. There is, on the one hand, that individual who has such an encyclopedic range of knowledge that, on any given occasion, he can summon up a tremendous range of fact applicable to the occasion. In this type of scholarship accuracy in memory and faithful adherence to the details of a situation is of the highest significance. It is this kind of scholarship which comes as the natural outgrowth of a stern and long-continued use of the laws of learning.

More recently considerable attention has been paid to that kind of scholarship represented in the individual who may not have such an encyclopedic accumulation of fact, but who brings to bear upon such facts as he possesses a flexibility and adaptiveness, a quickness of insight and of trial and error judgment, which makes for discovery rather than textual criticism. In other words, this is a kind of scholarship which seems to present a good many parallels with the versatility and adaptiveness of great athletes. It is clear, of course, that neither a muscle nor a bone could be highly adaptive in this sense. It is also clear that facts, taken by them-

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selves, cannot be adaptive. Adaptiveness or versatility grows out of a property of the nervous system. Our argument has it that continued repetition of the same movements or continued revival of the same memories freeze the nervous system into set types of activity rather than contribute to that kind of alert flexibility which is so intimately related with creativeness either on the athletic field or in the chair of the philosopher.

Physical Education in Finland

(*Continued from Page 48*)

used in a few places which seems to have a great future. The schools are so far apart that if all the children were brought together it would take, for many schools, twenty miles of travel, and we do not have automobiles, as in Los Angeles, to transport them. It is arranged that the children of two nearby schools meet one year in one place, the next year in the other, alternating each year. They have mass competition for 50 per cent of the children and at the same time individual competition between their best representatives. Then we estimate average scores for 50 per cent of the children and the averages of 5 per cent best competitors from each school. Then a week later follows the big conference meet of these schools. They all send their representative five boys to this meet. Then of these five representatives, three boys are selected and an average taken of their scores in the central meet with those in the home meet. Then the average of the great mass competing in the home meet is compared with the big masses of each school and from year to year we can take the average of fifteen best individuals in the central meet and the scores of each school can be compared with them. Thus we can say that one year the mass average of a certain school exceeds by 50 per cent the average of fifteen best individual scores of the parish, another year 54.5 per cent, etc. We can exactly describe the standard of those schools.

THEN a few words regarding the learned school. Men and women teachers have a regular three-year course in the State University Physical Department Training School. It is so antiquated, however, that little consideration is given to games and sports. Lately a change has been made in this respect. These teachers are placed in charge of physical education in the schools and also physical activities outside the school curriculum. The methods are very much the same as in rural schools except that the German gymnastics are given in a more competent way. If outdoor exercise cannot be had, they can give a good lesson of formal exercise. Lately, the new Danish system of Bukh's gymnastics is used, giving exercise for the most important parts of the body, the shoulders, hips, etc. I may add that soccer football and ice hockey are played much in the learned school. In general, physical education in Finland is very backward as compared with its development in the United States.

Physical Education in France

(*Continued from Page 53*)

of France, if they are to obtain a subsidy and the use of a field for all types of athletic events.

THE dominant characteristic of our physical education in France is not militaristic, but rather anarchic. It would even be eminently desirable for France to have a doctrine. It could be distinctly different from that to which most other countries seem to adhere. It should aim at increasing the robustness and the full development of the child and the adult.

Making a truce with the war systems, it would be time to produce a French method, a thing which is possible in conformity with the objectives set forth. The application of this method would be made through the interest and under the control of the government. A slight difficulty, however, would arise, that of including or of excluding the athletic clubs from this organization. Athletics according to our opinion, would have to be one of the aspects of this method; athletics—methodical, controlled, adaptable, and justifying its right to exist in a physiological and social way. Athletics, according to this conception, would appear in three divisions: (1) school athletics, (2) university athletics, and (3) athletic associations. These divisions would be officially recognized and encouraged.

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Contribution of Jiudo

(*Continued from Page 40*)

defense I became convinced that they all depend on the application of one all-pervading principle, namely: "Whatever be the object, it can best be attained by the highest or maximum efficient use of mind and body for that purpose." Just as this principle applied to the methods of attack and defense constitutes Jiujutsu, this same principle applied to physical, mental, and moral culture, as well as to ways of living and carrying on of business, constitutes the study of, and the training in, those things.

Once the real import of this principle be understood, it may be applied to all phases of life and activity and enable one to lead the highest and the most rational life.

The real understanding of this principle need not necessarily be arrived at through the training in the methods of attack and defense, but as I came to conceive of this idea through the training in these methods, I made such training in contest and the training for the development of the body the regular means of arriving at the principle.

This principle of maximum efficiency when applied to the keying-up or perfecting of social life, just as when applied to the coordination of mind and body—in the science of attack and defense—demands, first of all, order and harmony among its members, and this can only be attained through mutual aid and concession, leading to mutual welfare and benefit.

The final aim of Jiudo, therefore, is to inculcate in the mind of man a spirit of respect for the principle of maximum efficiency and of mutual welfare and benefit, leading him so to practice them that man individually and collectively can attain the highest state of advancement, and, at the same time, develop the body and learn the art of attack and defense.

If we closely observe the actual state of society all over the world, notwithstanding the fact that morality in all its forms (religious, philosophical, and traditional) is meant to improve man's conduct in society and make the world ideal, the fact seems quite the contrary. We notice vices, quarrels, and discontent in every level of society, from the highest to the lowest. While we are taught hygiene and correct ways of living in school from childhood up to mature age, we still are prone to neglect the rules of good clean living and of hygienic and orderly lives.

The actual facts prove that our society is lacking in something which, if brought to light and universally acknowledged, can remodel the present society and bring greater happiness and satisfaction to this world. This is the teaching of maximum efficiency and mutual welfare and benefit. I do not mean to say that our time-honored moral precepts and hygienics may be less observed. However, let those precepts and advices be as much respected even as they used to be, but in addition to these our principle of maximum efficiency and mutual welfare and benefit should ever be paramount. This I emphatically say, because at this age of criticism and new ideas, for every teaching and advice to have force, it must have some indubitable reason for facts in the background. We do not hear the thinking man today say, "Because I believe in such and such a thing, therefore you must believe in it," or, "I came to such and such a conclusion through my own reasoning process therefore you also must come to the same conclusion." Whatever one affirms must be based on facts or reasoning which no sane person can deny or doubt. Certainly none can deny the value of the principle "whatever be the objective, it can best be attained by the highest or maximum efficient use of mind and body for that purpose." Again, none can deny that it is only by aiming that every member of society can keep from discord and quarrelling, and live in peace and prosperity. Is it not because of the universal recognition of these facts that people came to talk so much about efficiency and scientific managements and that everywhere these are being advocated? In addition to this, the principle of give-and-take is more and more coming to be the determining factor in the lives of all humanity. Is it not because this principle of mutual welfare and benefit has been well recognized that we came to form the League of Nations and the Great Powers of the world came to meet for the decrease of naval and military armaments? These movements are also automatic acknowledgments of the crying need of efficiency and mutual welfare and benefit. They must be fostered by the educational forces of every country.

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Problems in Poland

(*Continued from Page 51*)

fitness, on the outcome of which the entry of the candidate is based. This trial for men consists of 100-meter run, 13.6 sec. maximum; broad jump of 4.8 meter minimum; high jump of 1.25 meters minimum; shot put 8 meters minimum; and 1,000-meter run in 3 min. 45 sec. maximum. For women, there is 60-meter run, broad and high jump, ball throw, and 500-meter run.

As can be observed from the aforesaid, the training of instructors requires much of our time and effort, due largely to the fact that so far we still experience shortage of them in various branches.

This will conclude the resumé of some physical education problems in Poland, treated somewhat sketchily due to briefness of time.

Relation of Orthopaedic Surgery

(*Continued from Page 36*)

letes and I should like to make an orthopaedic observation. Are athletes the perfect machines we are led to believe they are? Do athletes, especially runners, have good posture? From a body-mechanics standpoint, do they reach the highest possible efficiency? Unfortunately the answer is often no. Many of them have round backs or round-hollow backs, or droop shoulders, to say nothing of not having as good foot and leg alignment as they should have.

Many coaches see only the motor aspect and miss the important relationship between vital organic capacity and skeletal alignment. For instance, in a round-back condition the ribs slant downward more acutely than normal, and the antero-post-diameter of the thorax is not as great as it would be if the spine were straighter and the ribs lifted upward and forward. This does not allow the maximum air space in the chest. This droop of the spine, lowering the thorax, also reduces the width of excursion of the diaphragm which is a two-way pump, hence it cannot draw in as much air on one stroke or return as much venous blood on the other stroke as it could if drawn taut and held higher, as would be the case if the spinal alignment were improved. What is the result? At the very apex of demand for oxidation of toxic products, of muscular and organic effort, the maximum oxygenation is not possible. Would it not be as consistent for a track coach to work, then, for improvement of spinal posture to get more from the machine as it would be to constantly train for motor skill and technic of performance?

In the same connection may I call your attention further to the fact that the round upper-back presupposes a compensatory hollow below, or some degree of lumbar lordosis. What is the effect on a runner of such a lordosis? Just this: the highly developed erector trunci muscles behind, and the shortened thigh flexors in front, hold the pelvis in a forward tilt. Now one of the needs of a runner is a long high stride, and you cannot get a high stride forward unless you can flex your spine. In this situation the lumbar spine is held in hyper-extension and locked there. The greater the muscular development the more firmly fixed this segment becomes in this position, which still further lessens the possibility of executing an easy flexible high stride.

Thus we see that if attention were given to nominal posture correction early in the athletic career of students, greater vital capacity as well as improved body mechanics could be obtained. When the matter of making records these days hinges on the matter of a split second, one can readily appreciate that such a condition might be the deciding factor between success and failure.

I will mention another inconsistency: What does it profit us to preach attention to diet and encourage an under-par child to join the milk brigade and eat lots of nourishing food and then, in the physical education department, to encourage him to play on a basketball team, swim excessively in cold water, etc., and thus burn up more than is gained by the aforementioned procedure?

One further example which is constantly before us as orthopaedists is the foot and shoe problem. Examinations of high school and college students active in gymnastics, sports, and athletics show continually an amazing number with faulty foot and leg alignment—probably getting by during these years by muscular hypertrophy alone, not realizing that the greater the motor power applied to a joint or bearing the greater

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will be the wear and tear on the joint or bearing.

Physical directors and coaches are prone to think more in terms of activity of muscles and coordinating skill of brain and nerves than in terms of bones and joints. Consequent upon such oversight, plus the use of faulty shoes for gymnasium and field use, to say nothing of bad shoes for everyday wear, the toll in later backaches, neuritis, leg pains, varicose veins, joint inflammation, hammer toes, corns, callosities, flattened and weak feet, is very great. Instead of the number of these conditions being lessened during this time of greatest corrective opportunity, I often fear that it may even be increased.

The greatest work we all can do together is to guide and direct our activities with such consideration of the future that the adults of the thirty-five to fifty year period get through the time of physical and mental crisis without a breakdown.

The end product of our culture, no matter in what country our lot is cast, should be a stronger, better-balanced, more skilful, more disease-resistant race of men and women.

Athletics and Mental Hygiene

(*Continued from Page 28*)

physical education. One could find in medical literature rather numerous cases in which the exercise treatment has made an appreciable change in serious neurasthenic conditions. Here is an example: in 1927, at the Congress of Arthritism held at Vitell, Doctors Lhuillier and Boigey presented their observations of an aggravated case of neurasthenia in which the patient suffering from cervicobrachial neuritis was considerably helped through the exercise treatment, taken, however, in homeopathic doses, so to speak. Before the treatment the respiratory quotient was 0.71, the pulmonary ventilation per minute scarcely 3 liters (2.6 liters). At the end of the treatment cephalagra and insomnia have yielded to the treatment, the patient takes short walks without experiencing fatigue, digestion is improved, the weight has increased, the respiratory quotient rises to 0.82, and the ventilation to 3.9 liters per minute. Six months later the beneficial results had not been lost, muscular atrophy of the hand had disappeared, the patient was walking without experiencing fatigue and had resumed her former mode of life.

The rôle of muscular exercise in these cases of neurasthenia is necessarily complex. Movement acts upon the general phenomena of nutrition and re-educates neuro-muscular functions which for a long time have been disturbed. It reawakens, in some way, the functions which have fallen into disuse. It also acts as a factor in counteracting auto-intoxication. Finally, the series of evident results acts upon the mental attitude of the patients and gives them that confidence in their strength which they have lost.

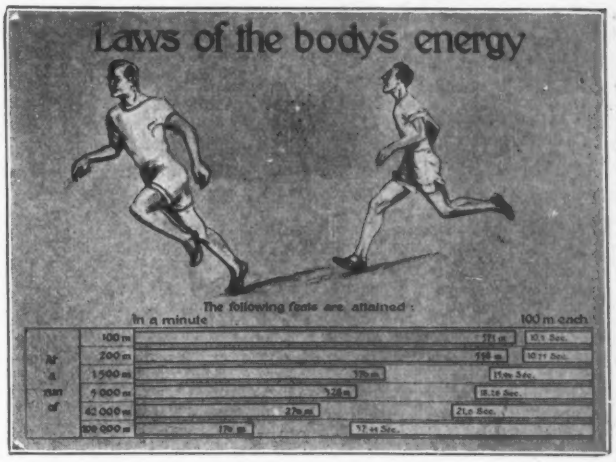
The respiratory organs stimulated by movement seem also to play an important rôle in the beneficial results of athletics on psychism. We also know that in cases of dementia praecox one often notices speech disturbances affecting the volume, pitch, and quality of the

voice, articulations of words, and the rhythm and intonation of sentences. These disturbances, which arise from a defect in the regulation of the respiratory current, indicate that there exists a relationship between the mechanical phenomena of respiration and the centers of representation of verbal images. Now respiratory re-education in modified forms of gymnastics and athletics causes these disturbances to disappear. We know also that a number of specialists in psychiatry and doctors in foreign countries consider that respiratory exercises produce interesting results in the treatment of sundry psychoneuroses.

I shall not take up here the study of neurosal disturbances of sexual origin. But it is indisputable that athletic habits, together with intelligent intellectual discipline or with manual labor which interests the workman, give a wholesome direction to thought of leisure moments. Sexual invasion of the thoughts of the adolescent is less frequent and disappears more rapidly in the case of a young, healthy person whose sleep is calm, whose appetite is regulated, and who has taken the oath to increase his skill, his agility, and his strength through a daily muscular regime, intelligently supervised. The intention to train systematically, the obligation to be master of oneself at all times, the obligation of emotional calmness, in order to obtain the maximum results from one's efforts, are sources of mental equilibrium. Agreeable sensations, indefinable but intense, produced by moderate muscular fatigue, the pleasantness of sleep which comes to the body which has just had strenuous exercise, eliminate the less wholesome sensual reveries. The emotional thrill produced by certain sports is an organic intoxication, in which literature and imagination have only a small part.

I SHALL not go into further amplifications. Today we are far removed from the conception which isolates in every man two independent territories, one of thought and one of body (action). Psychic life, vegetative life, life of relationship—these are terms for classifying biological phenomena. All the systems, all the organs are linked together, thanks to interactions whose agents are the glands of internal secretion and the nervous system. The muscular system or rather the indissociable complex, muscle-nerve, through the importance of its mass, which represents almost half of the total weight of the individual; through the importance of the energetic phenomena, of which it is the seat; through the quality of its system of command; and through the reflexes of which it is the point of departure, plays an essential rôle in the total education of childhood, in the conservation of the equilibrium of the adult.

Experiment and the clinic come forward to proclaim that muscular activity is a form of activity which, far from resisting cerebral activity, completes and sustains it. Moreover, all the forms of activity are linked together; they do not work in opposition to each other if one knows how to maintain reasonable balance and moderation. It is the function of education to establish this fine balance.



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International Conference

(*Continued from Page 17*)

the first week overlapped the last week of the first session of the University Summer Session and also the week of the International Recreation Congress which was held in Los Angeles near the University. The second week of the series paralleled the first week of the Olympic Games so that many representatives from various parts of the United States and other countries were present—a well distributed representation from various countries.

Several of the original speakers found it impossible at the last moment, because of economic or political conditions, to make the trip from Europe, a factor which necessitated certain substitutions. The final list of speakers, however, included representatives from seven different countries: France, Great Britain, Germany, Japan, Poland, Finland, and the United States. It was a source of great regret that several of the original speakers were unable to attend. These included Mrs. Elsa Matz, member of the German Reichstag, German delegate to the League of Nations, Headmistress of the Westend School for Girls of Charlottenburg, Germany, who was to have spoken on the subject, "Women's New Day in Germany"; Dr. Adolph Abrahams, Medical Advisor to the British Olympic Team, Consulting Physician and Research Specialist in Physiology of Exercise, who was to have spoken on the subject, "Recent Developments in the Physiology of Exercise"; Dr. Hans Sippel, Secretary of the International Scientific Society for Physical Education, Professor of the Psychology of Physical Education at Teachers College, Dortmund, Germany, whose subject was, "Sport and Its Influence on Intellectual Capacity"; also Dr. W. Knoll, Director of the Institute of Physical Culture, University of Hamburg, General Secretary of the International Congress on Physical Education and Sports, whose subject was "Promoting International Good Will Through Sports and Physical Education." Dr. Bellin du Coteau and Professor Latarjet were unable to attend in person, but sent manuscripts of addresses which have been translated from the French and are presented herewith.

The lecture given by Dr. Eugene C. Howe, Professor of Physical Education at Wellesley College, on the subject, "Recent Psychological Tests in Physical Coordination," was illustrated with motion pictures. It dealt with recent experimental tests, many of them incomplete, and was of such nature that Dr. Howe felt it unwise to attempt to put it in manuscript form for publication. Consequently we are unable to include it in the published list. This was a source of great regret inasmuch as the lecture was unusually fine and presented scientific material of great interest to educators.

In connection with Dr. McKenzie's address which was held in the Art Museum Lecture Hall in Olympic Park, the group was given a personal tour of the Olympic Art Exhibit in which Dr. McKenzie's own sculpture exhibit occupied a prominent place and in which his beautiful medallion, "The Olympic Buckler,"

depicting various types of activities received the Olympic award.

The sponsoring institutions wish to express their great appreciation for the splendid cooperation displayed by the various speakers on the program and in particular those who so kindly consented to substitute for speakers at the last moment. This was at a distinct sacrifice on the part of some who had very large responsibilities in connection with the International Recreation Congress and the Olympic Games.

The lectures are presented herewith in published form in the hope that they may serve a most useful purpose.

Sport for the People

(Continued from Page 25)

their exercises alone or join a club for further activity.

The founder of the Olympic Games, the French Baron de Coubertin, once demanded that everybody engaged in responsible and wearing professional work should, from time to time, undergo a four-weeks' sporting course of treatment. During this time, taken out of his normal round of life, he should enjoy holidays of a certain duration, living solely for this recreation. Spartan plainness and vigorous bodily exercises were to play the principal part in this scheme.

It might perhaps be a great public task to see to it that everyone who is able to disengage himself from every-day work for a time, can find a sporting cure at a convenient place, be it for four weeks, for two, or even one week only.

The sportsman rejoicing in contests finds his sport, his sporting teacher, and the public backing him up. But it will be our duty to look after the more modest, the weaker and quieter people. They do not want sport to be their commander-in-chief, they want it free, in play, serene and sound. The sporting teacher or recreation leader should work in this spirit. Not the number of good athletes, but the number of bad ones and of those with white hairs shall be the object of his pride.

LASTLY, I would call to mind the cultivation of wandering, of travelling on foot. One of the American university professors once complained to me that the young Americans were about to forget how to use their legs. Elsewhere we are progressing in the same direction.

It is the more important, therefore, to again lure the inhabitants of large cities into nature. No long journeys, no motor car drives with picnics and comfort! Wandering "on the shoemaker's black horses," as we say in Germany, is the right thing. On foot, plainly dressed, plainly nourished, sleeping in plain beds is good sport for everybody, for poor and rich; and they will recognize, when resting on nature's bosom, that they both are men of one time and of one people.

But it is of great importance to hammer into the memory of the public of all countries the words once spoken by our Reichs-President von Hindenburg, words that apply to all of us:

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Aims and Methods in School Athletics. Wingate Memorial Lectures, 1931-32. Edited by E. Dana Caulkins. (Wingate Memorial Foundation, 1932) 481 pages. $2.00.

This book comprises an edited record of the Wingate Memorial Lectures delivered during the year 1931-32. It deals with current problems in school athletics, such as sound educational objectives, dynamic health up-building, aims and methods. The addresses were given before the athletic teachers and coaches of New York City and the questions and answers following each address are also given.

The published record of these lectures, given by leaders in the profession during the past three years, forms a valuable addition to the library of all persons interested in physical education in its various phases.

Blue Book of College Athletics, 1932-33. Edited by Robert McNeil, (Fred Turbyville, 1932) 216 pages. $4.00.

Physical Educators: Are you acquainted with this most useful bulletin? It contains the personnel of athletic departments and conferences. It is published annually and supplements are issued from time to time in order to keep the personnel up-to-date. Other information concerning the colleges, such as enrollment, nicknames of teams, colors, telephone numbers, etc., is also given where obtainable.

Intramural Athletics. Edited and Published by Fred Turbyville. 63 pages.

This is a supplement to the *Blue Book of College Athletics*, giving the history and organization of this new phase of work, as well as the personnel and other information concerning colleges conducting intramural departments.

Folk Festivals. Mary Effie Shambaugh. (A. S. Barnes & Co., 1932) 160 pages. 59 illus. $3.00.

This is a most interesting collection of folk dances grouped for festival use. It is divided into six parts and the numerous bibliographies form a very important part of the book. Part I deals with the organization of folk festivals and contains a bibliography of festivals and pageants. Part II deals with feasts of the American Sioux Indians, contains four Indian dances with the description of their background, directions, and music, and a bibliography on the Sioux and Dakota Indians. Part III deals with the fiestas of the Spanish and Mexicans in California. Spanish and Mexican dances are described and there is a bibliography on early California and one on Mexico. Part IV treats of folk gatherings of Central Europe, containing material for an Austrian, a Moravian, and a Russian festival, with bibliographies for each. Part V deals with folk gatherings of Southeastern Europe, giving Bulgarian, Greek, and Yugoslav dances and bibliographies. Part VI describes festivals based on folk tales. Other interesting features of the book are the numerous illustrations portraying costumes in their proper setting, outlines for the production of five folk festivals, and the table of contents which contains an index of dances arranged according to school grades from junior high school through university.

Tennis Organized. Dorothy Davies Randle and Marjorie Hillas. (A. S. Barnes & Co., 1932) 165 pages. 26 illus. 37 diagrams. $1.60.

This book is indispensable for the instructor of tennis. It gives help in the organization and handling of groups for tennis instructions. The strokes are analyzed and class and court organization for practicing them carefully worked out. Tennis games that may be used for preliminary practice are described. Teamwork in singles and doubles is discussed and numerous diagrams given. There is a chapter dealing with tournaments, also there are sections giving suggestions for organization of tennis in summer camps, and in schools and colleges. A tennis bibliography adds to the value of the book.

Normal and Elementary Physical Diagnosis (Second edition). Whitelaw Reid Morrison and Laurence B. Chenoweth. (Lea & Febiger, 1932) 376 pages. $4.00.

The second edition of this important work presents a complete revision and resetting of the text. It is well done. The authors have kept in touch with the changing interpretations of scientific data and the reader is impressed with the evidences of thorough and sincere scholarship.

This book is a basic text that should help the numerous persons without medical training who are engaged in appraising in various organizations and for many different purposes the health status of the individual. Throughout the authors keep the function of such "examiners" in mind and contribute by their point of view to a sane approach and a happy solution of a vexatious problem. Emphasis is given to elementary diagnosis which will help the classroom teacher in recognizing the early symptoms of the common diseases.

The illustrations are excellent; the type clear and of desirable size. An excellent bibliography in addition to many suggestive tests, adds to the value of this textbook. The index is adequate.

Kicking the American Football. Leroy N. Mills. (G. P. Putnam's Sons, 1932) 156 pages. Illus. $2.50.

The author states that "the art of kicking the American football is the one great specialty in the game which has not up to the present time been really covered." One of his pupils writes that there is no angle on kicking a football that the author of this book has not studied thoroughly. Therefore, for the football player and coach the results of the author's study will be most helpful. Numerous illustrations and diagrams add to the value of the book.

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